

FIG.1

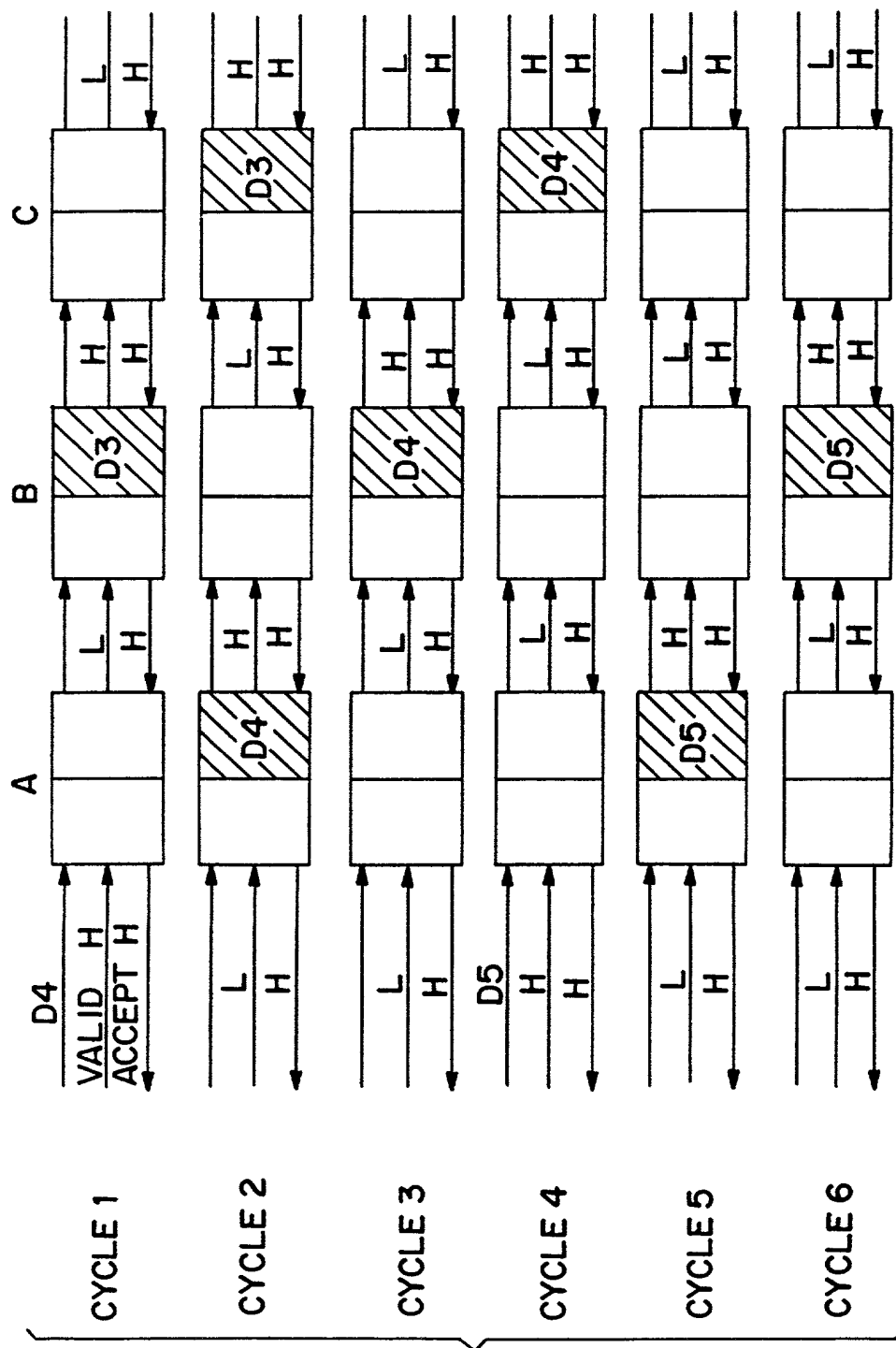


FIG. 2(A)

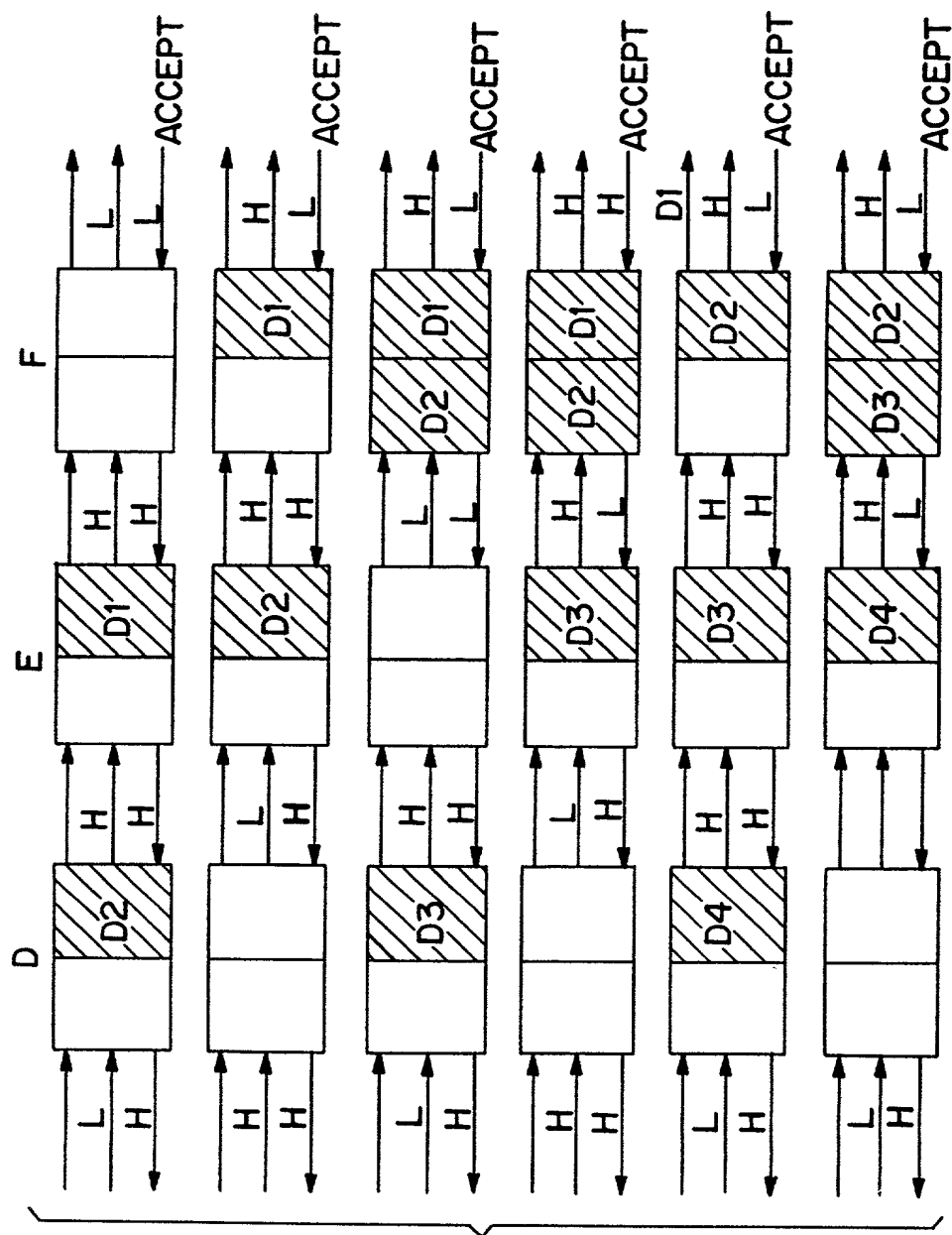
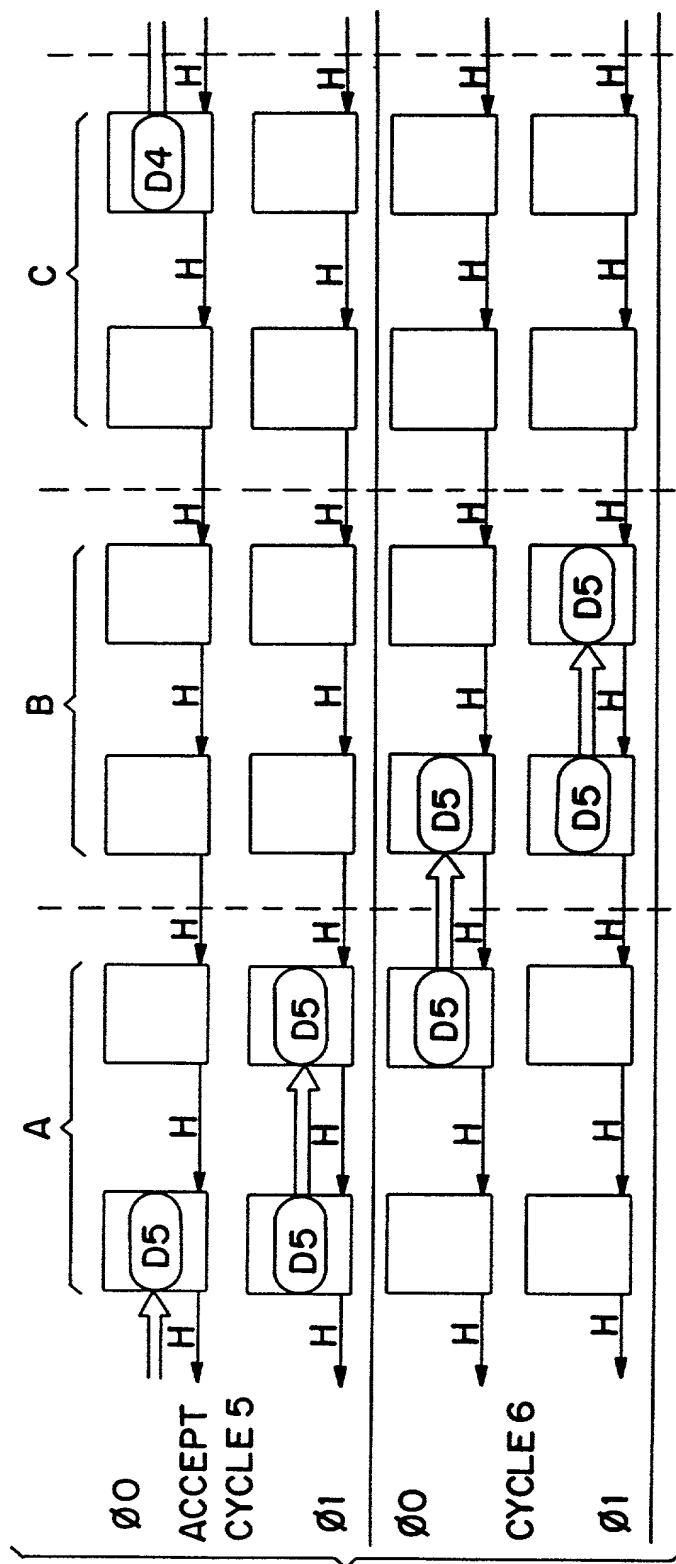


FIG. 2(B)

FIG. 3A-2



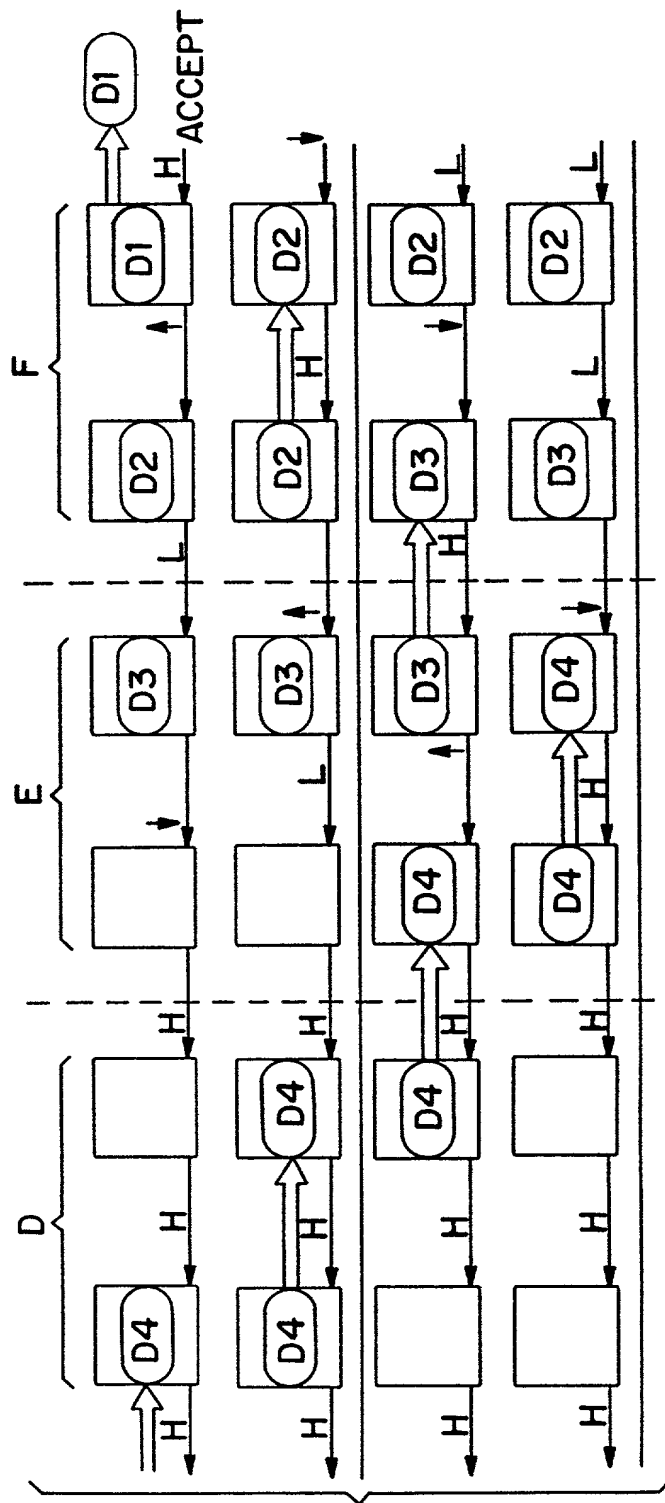


FIG. 3B-2

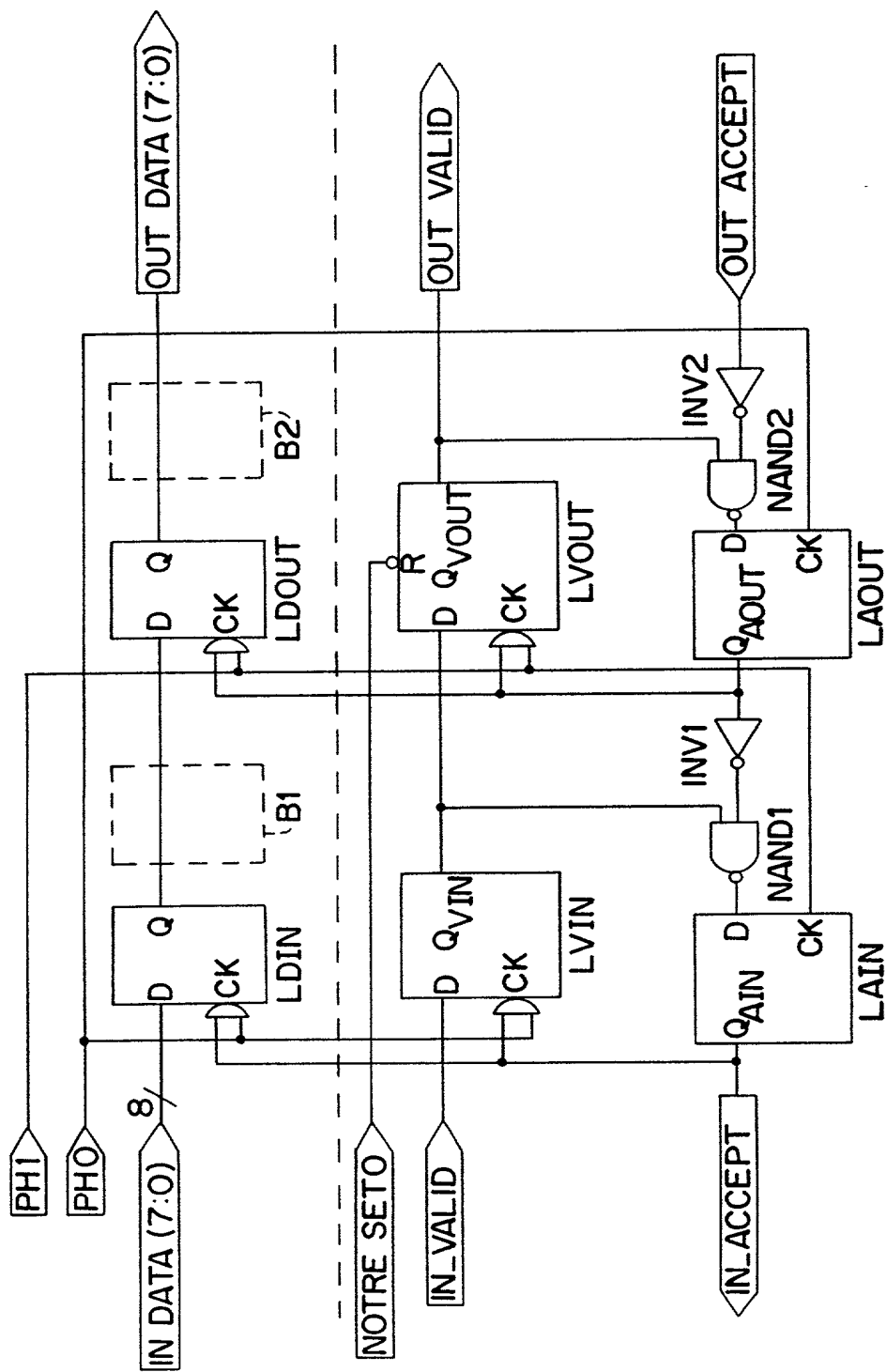


FIG. 4

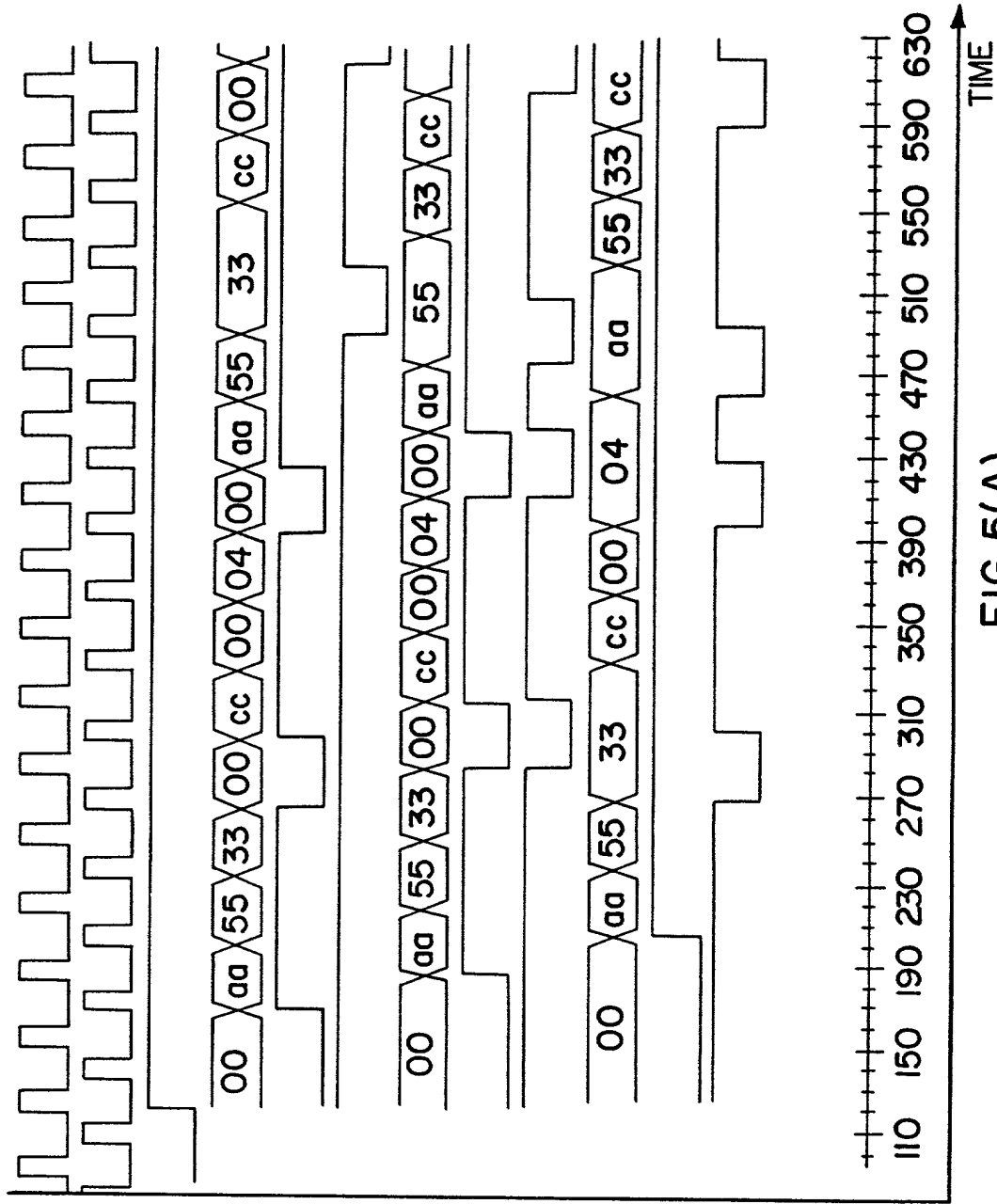


FIG. 5(A)

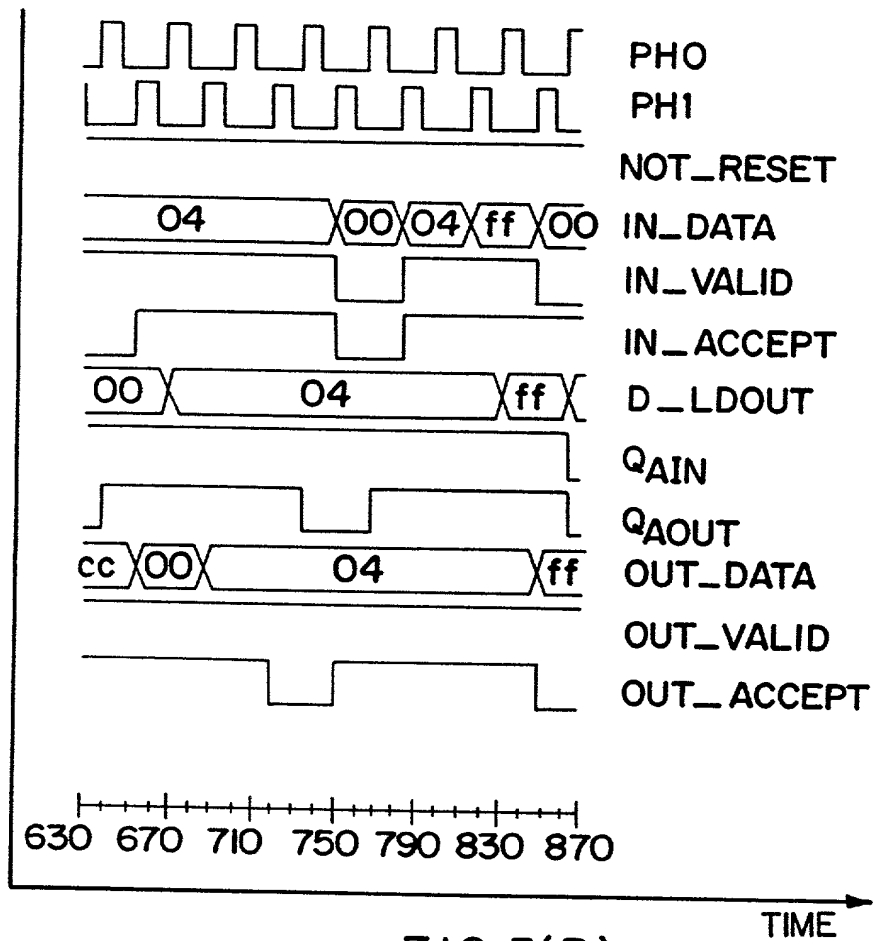


FIG. 5(B)

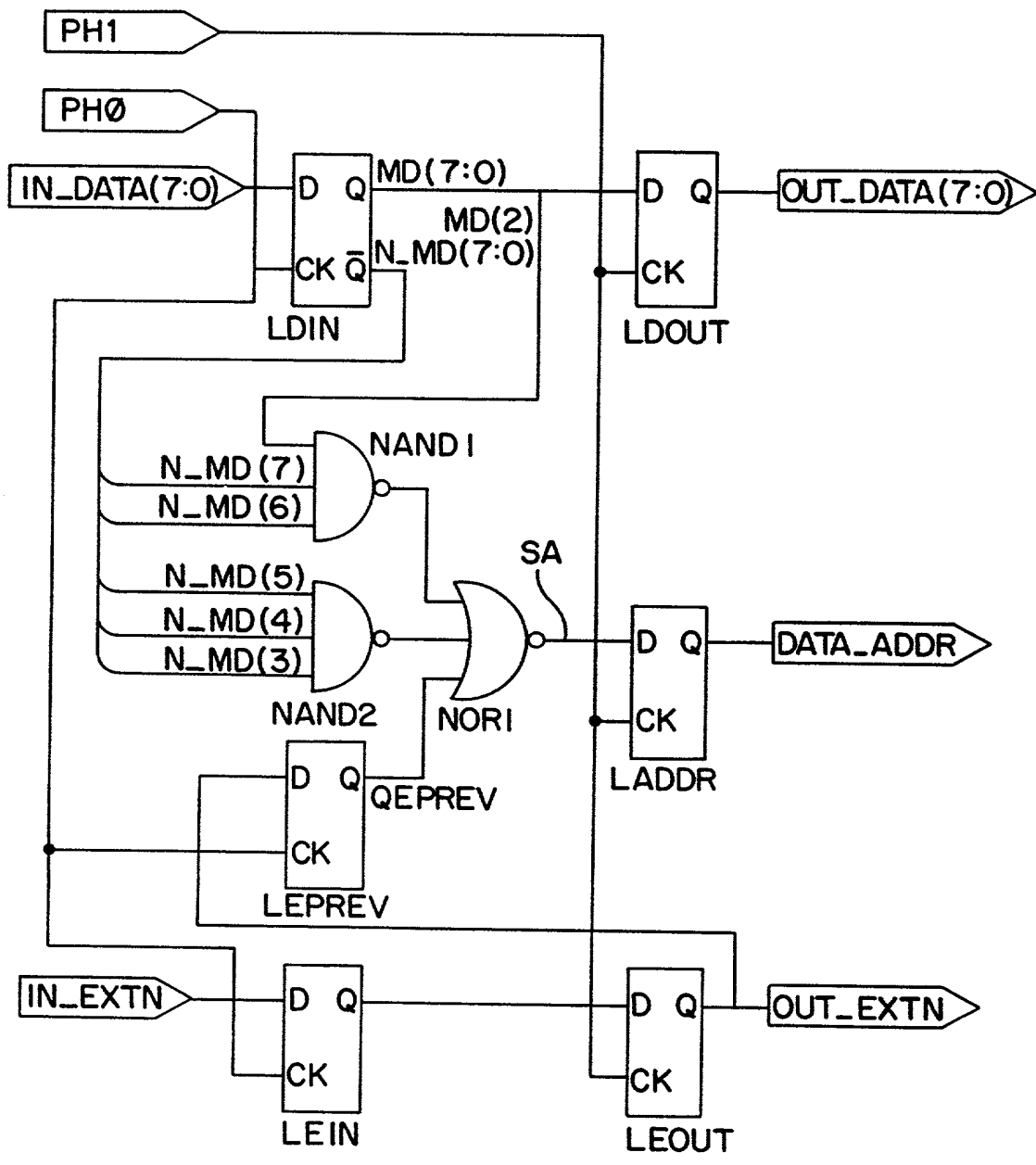


FIG. 6

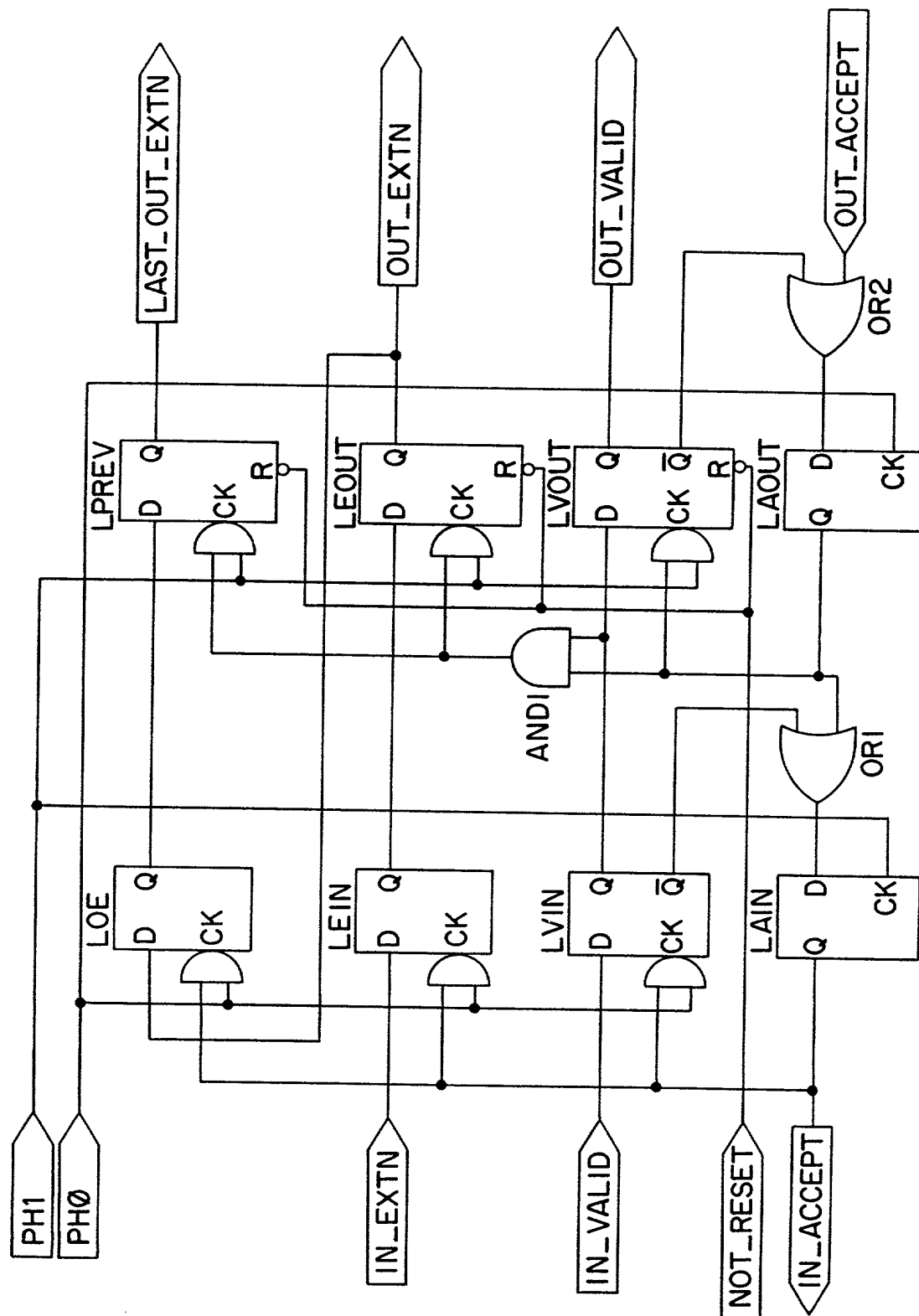


FIG. 7

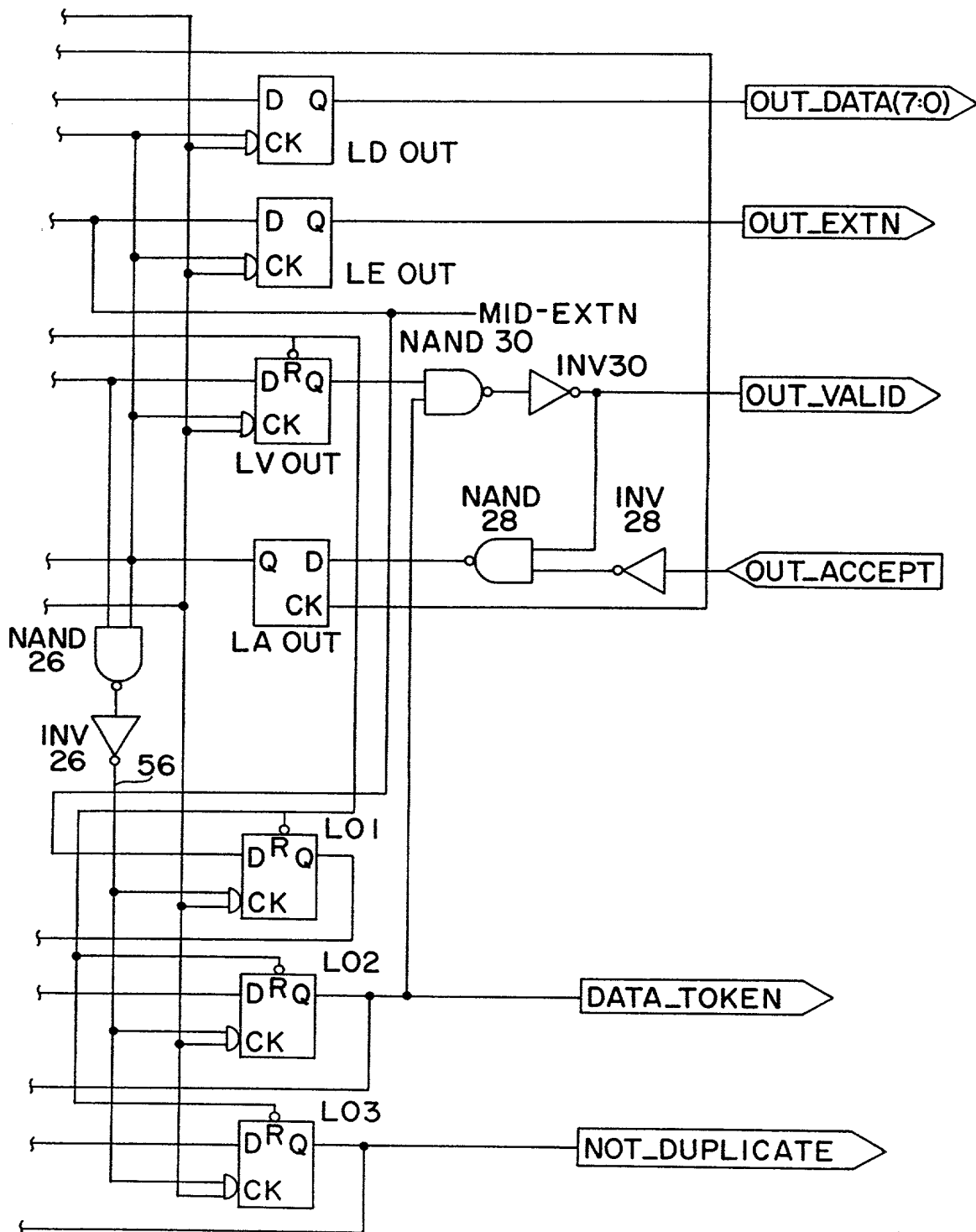


FIG. 8(B)

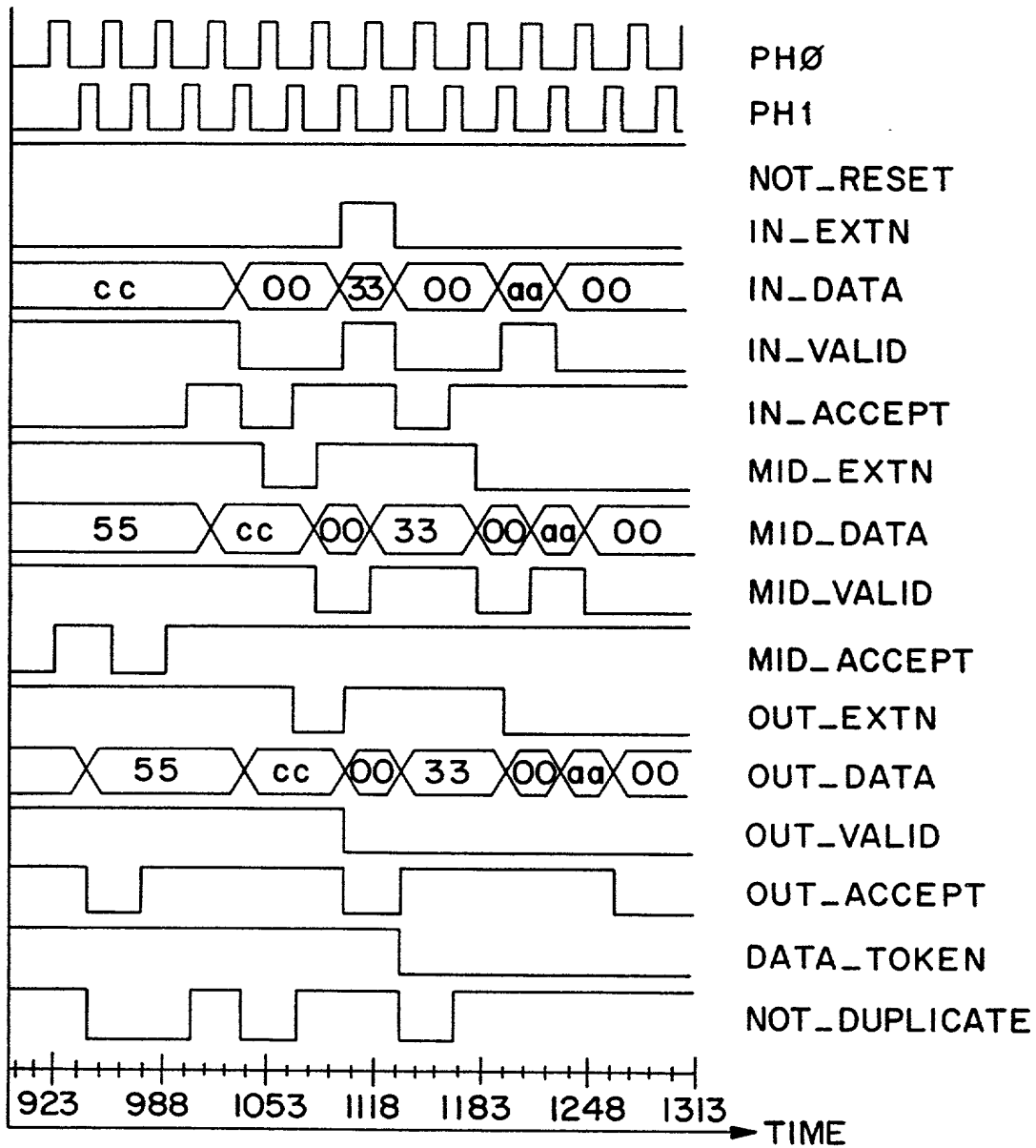
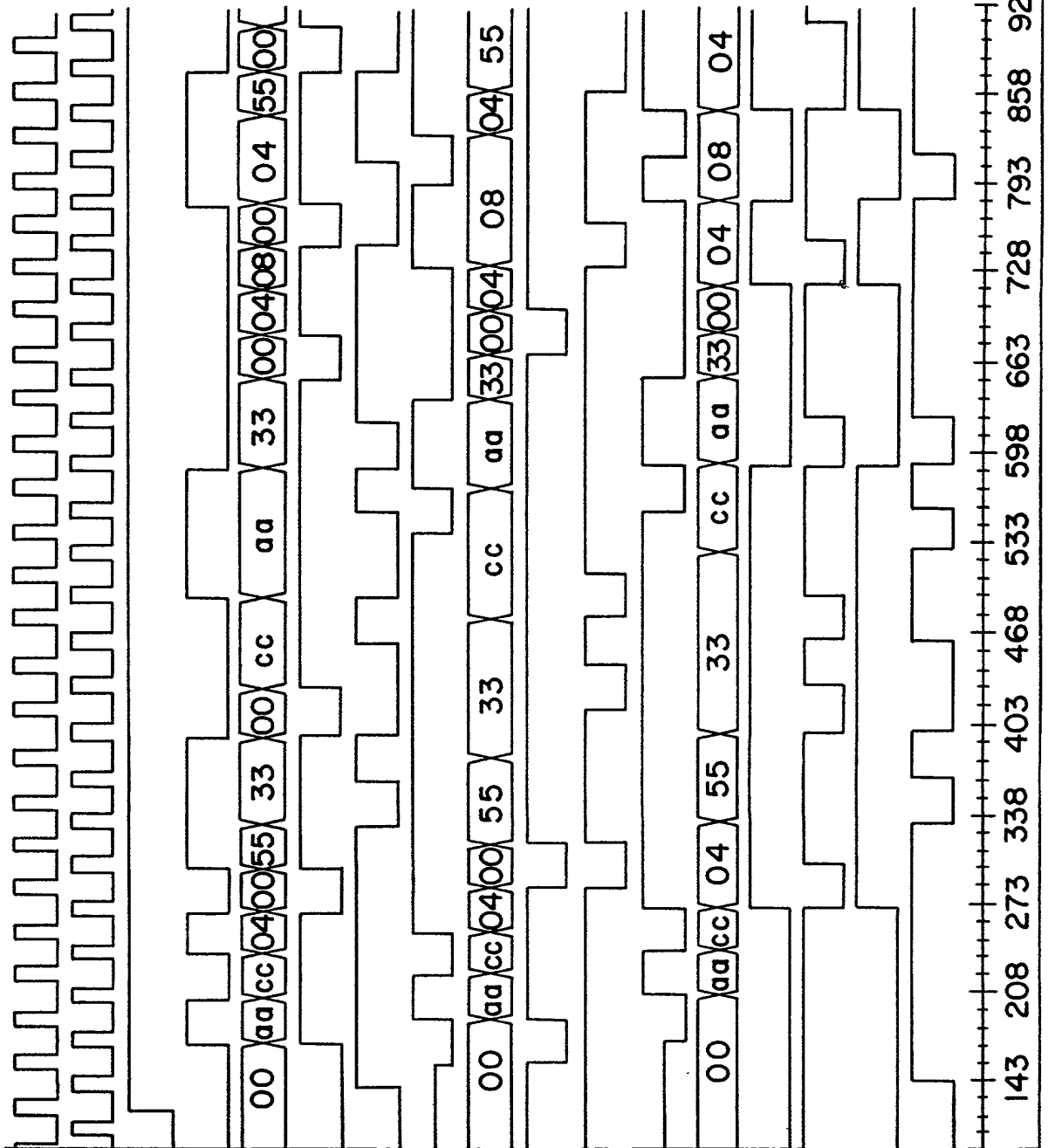


FIG. 9(B)



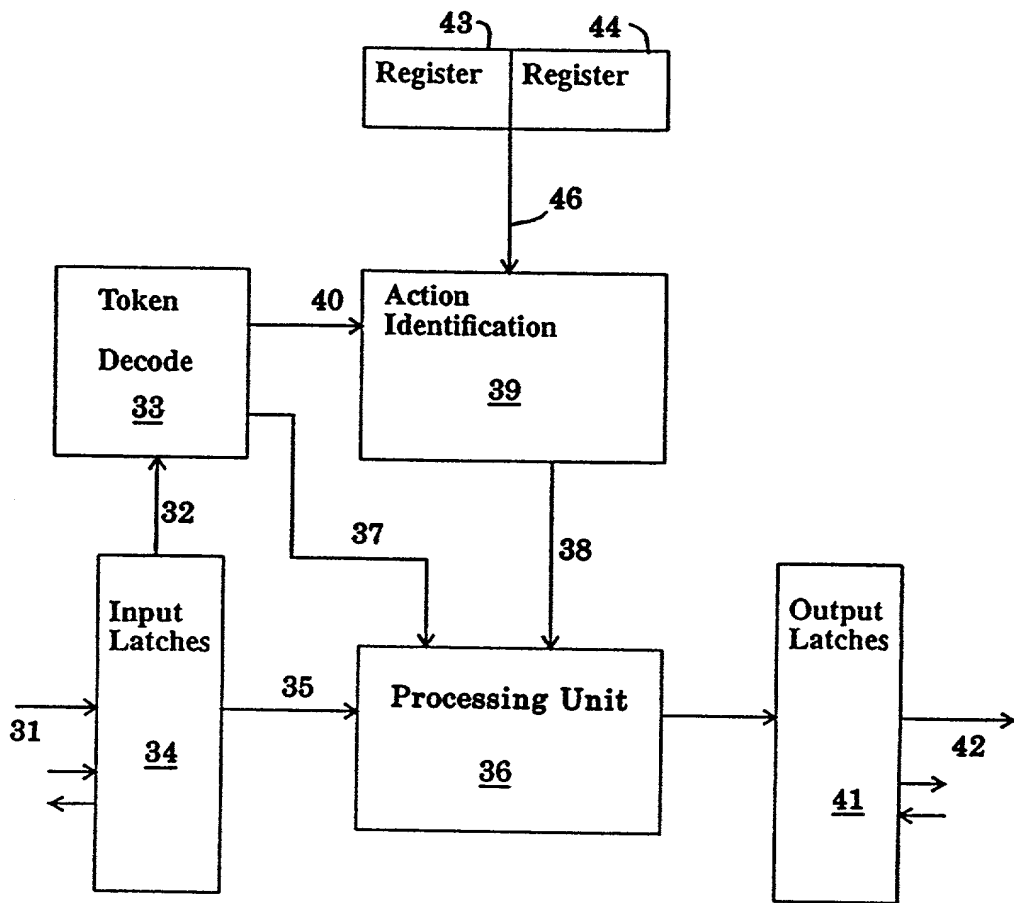
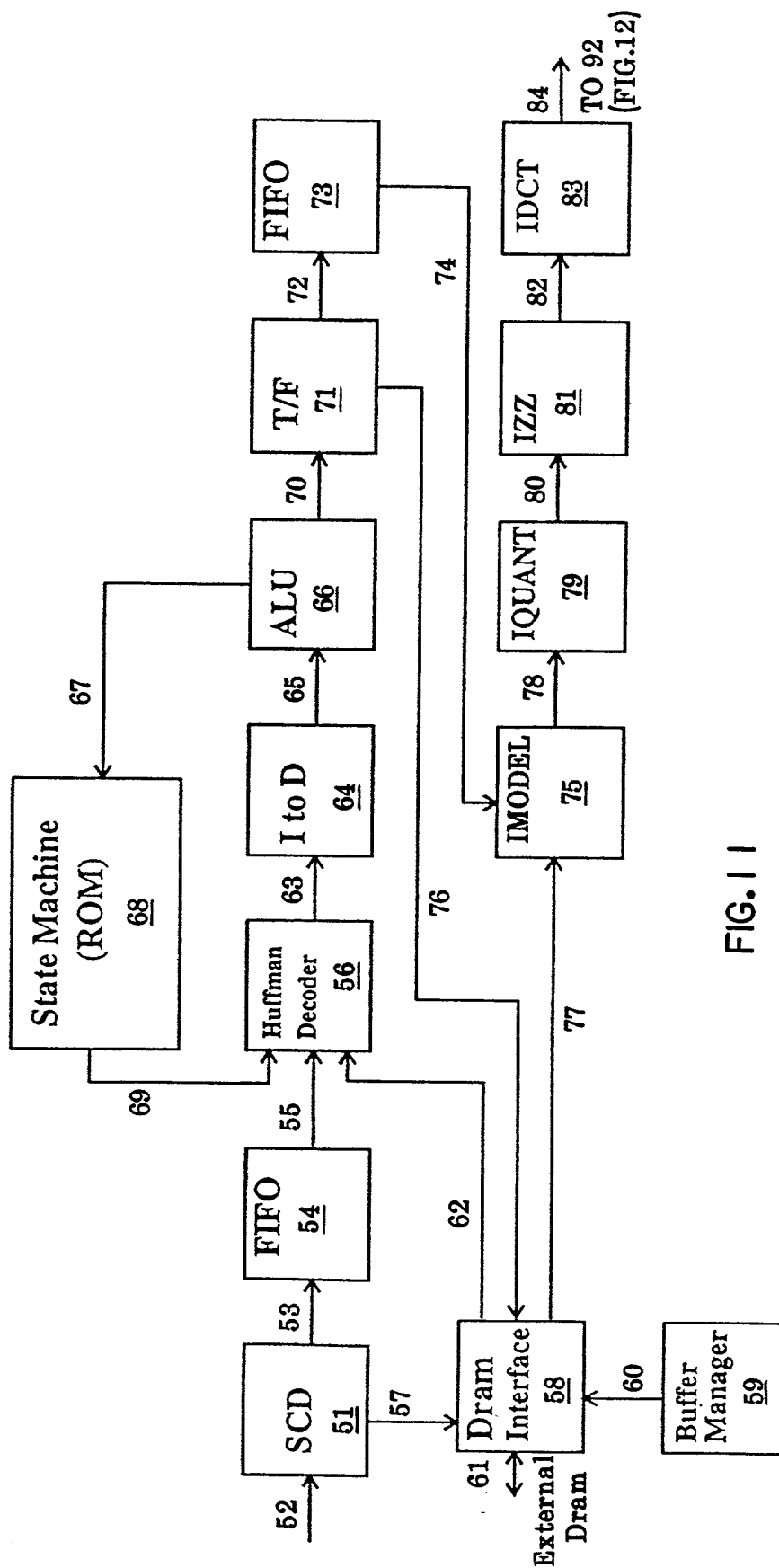


FIG. 10



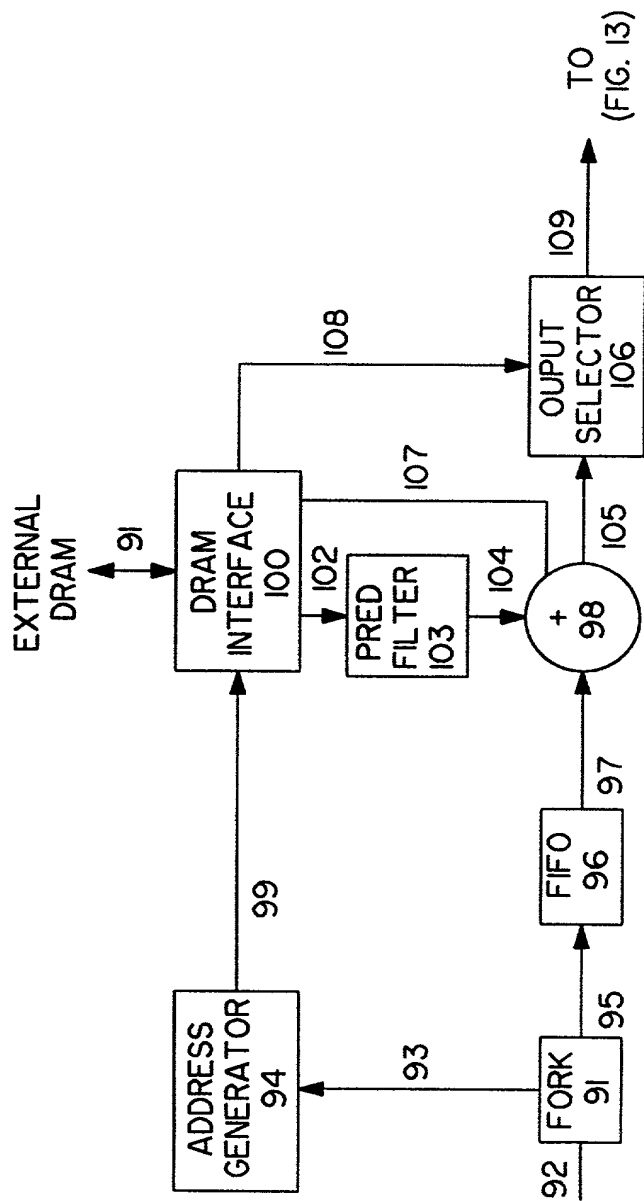


FIG. 12

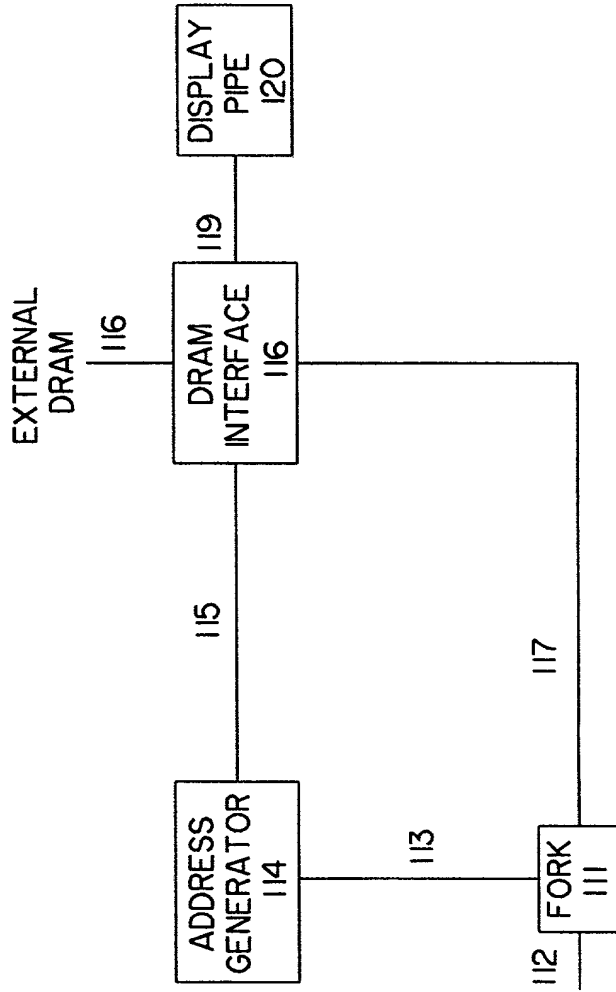
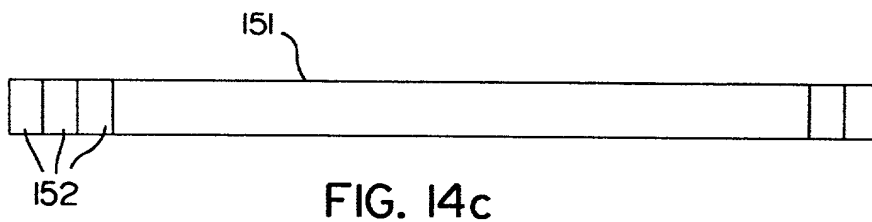
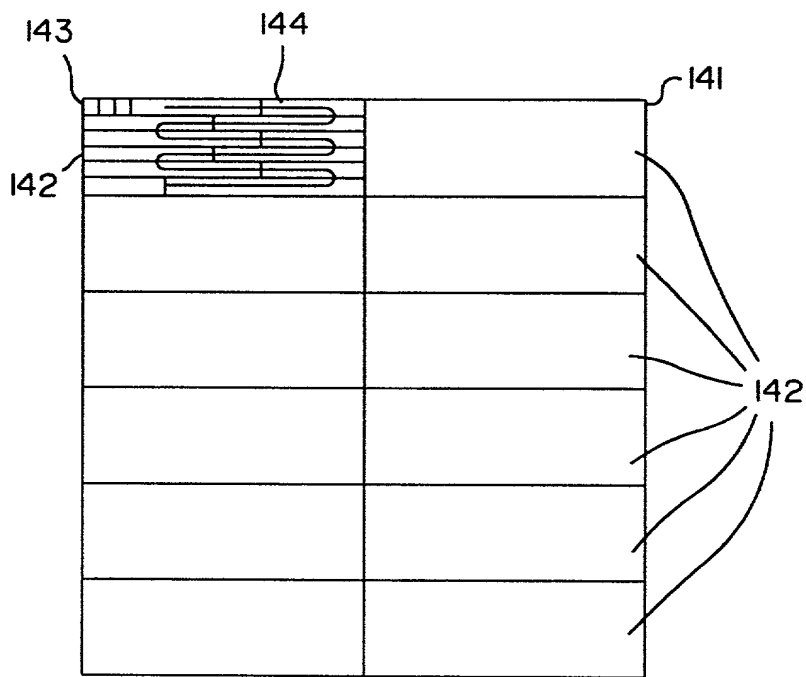
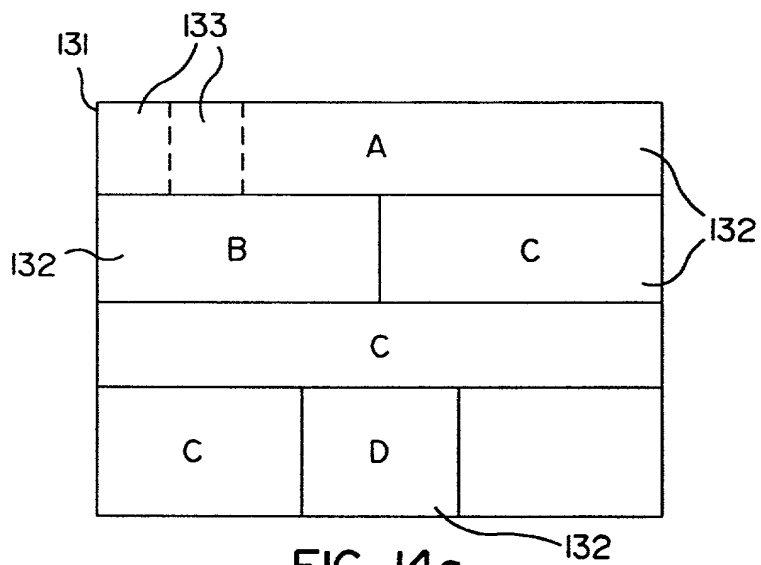


FIG. 13



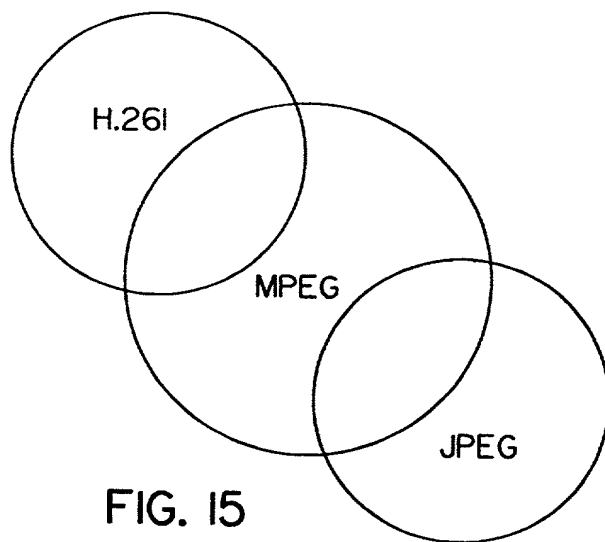


FIG. 15

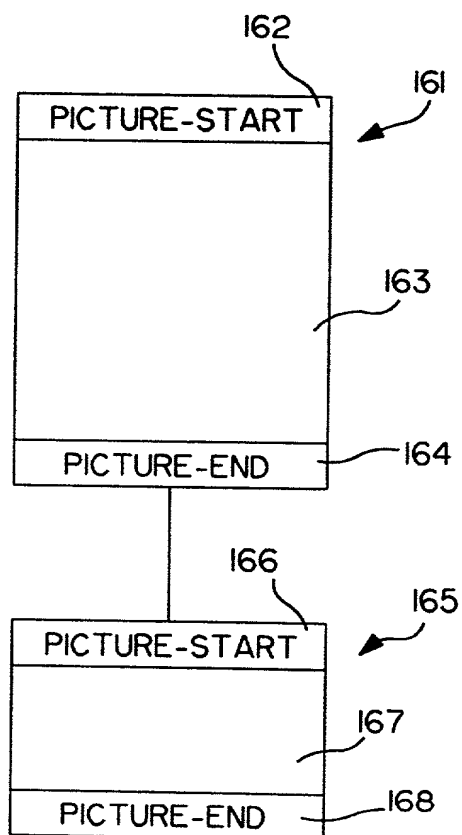
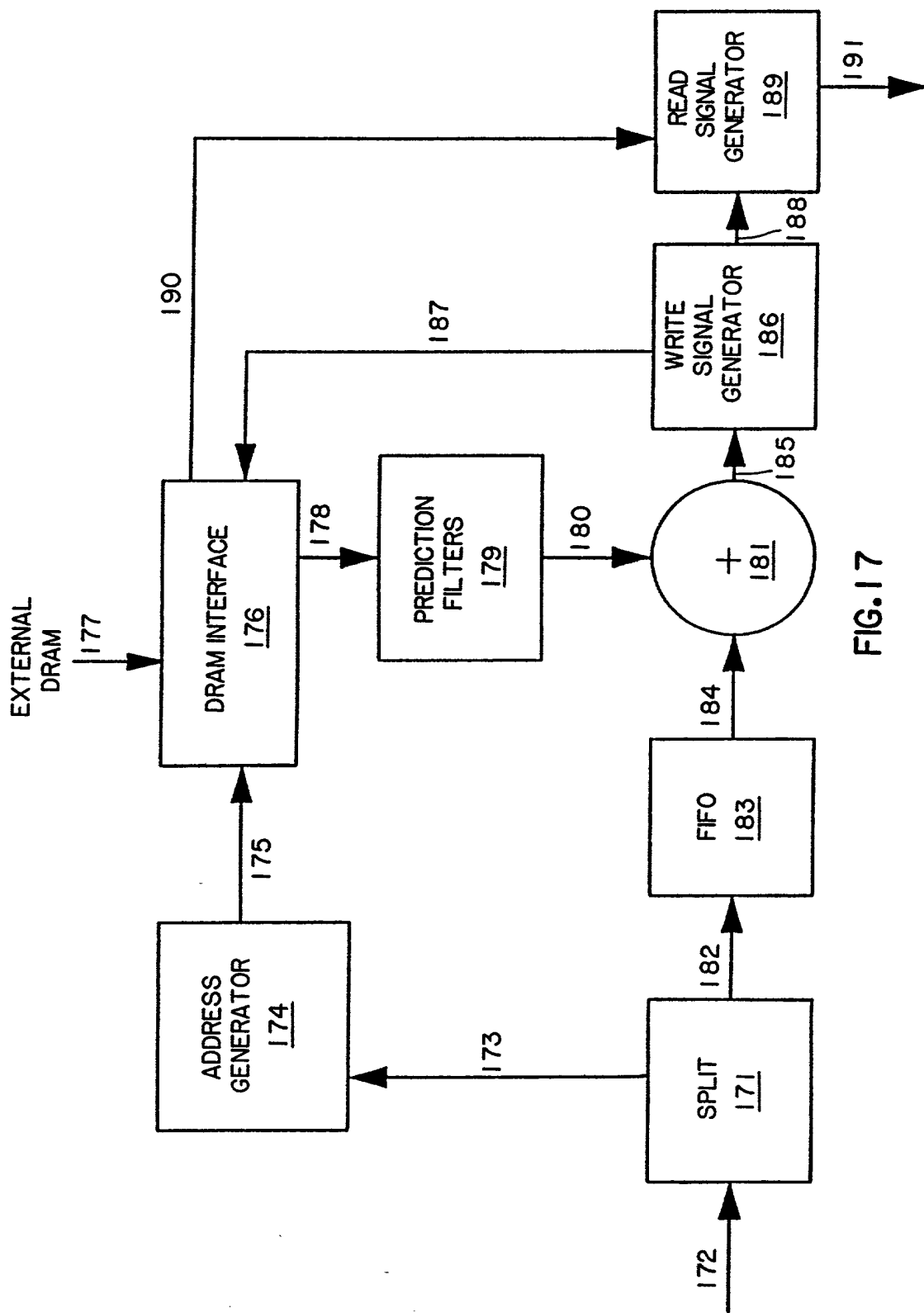


FIG. 16



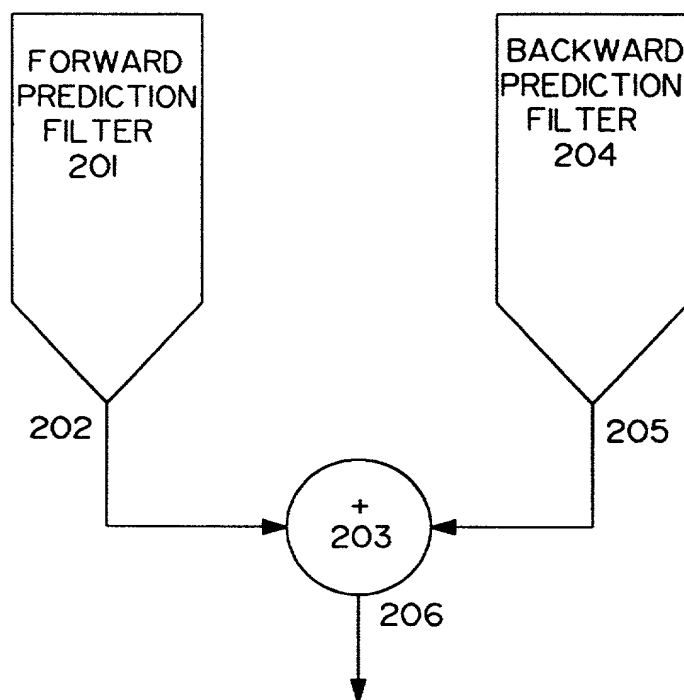


FIG. 18

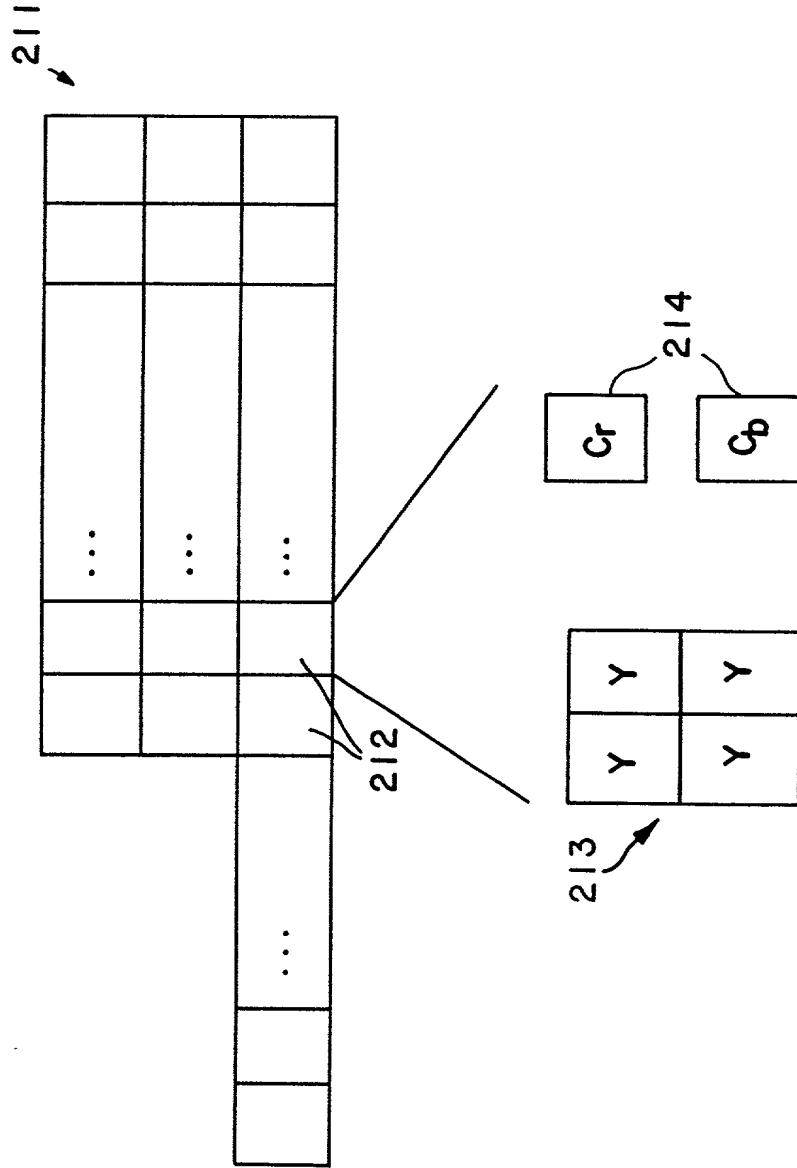


FIG. 19

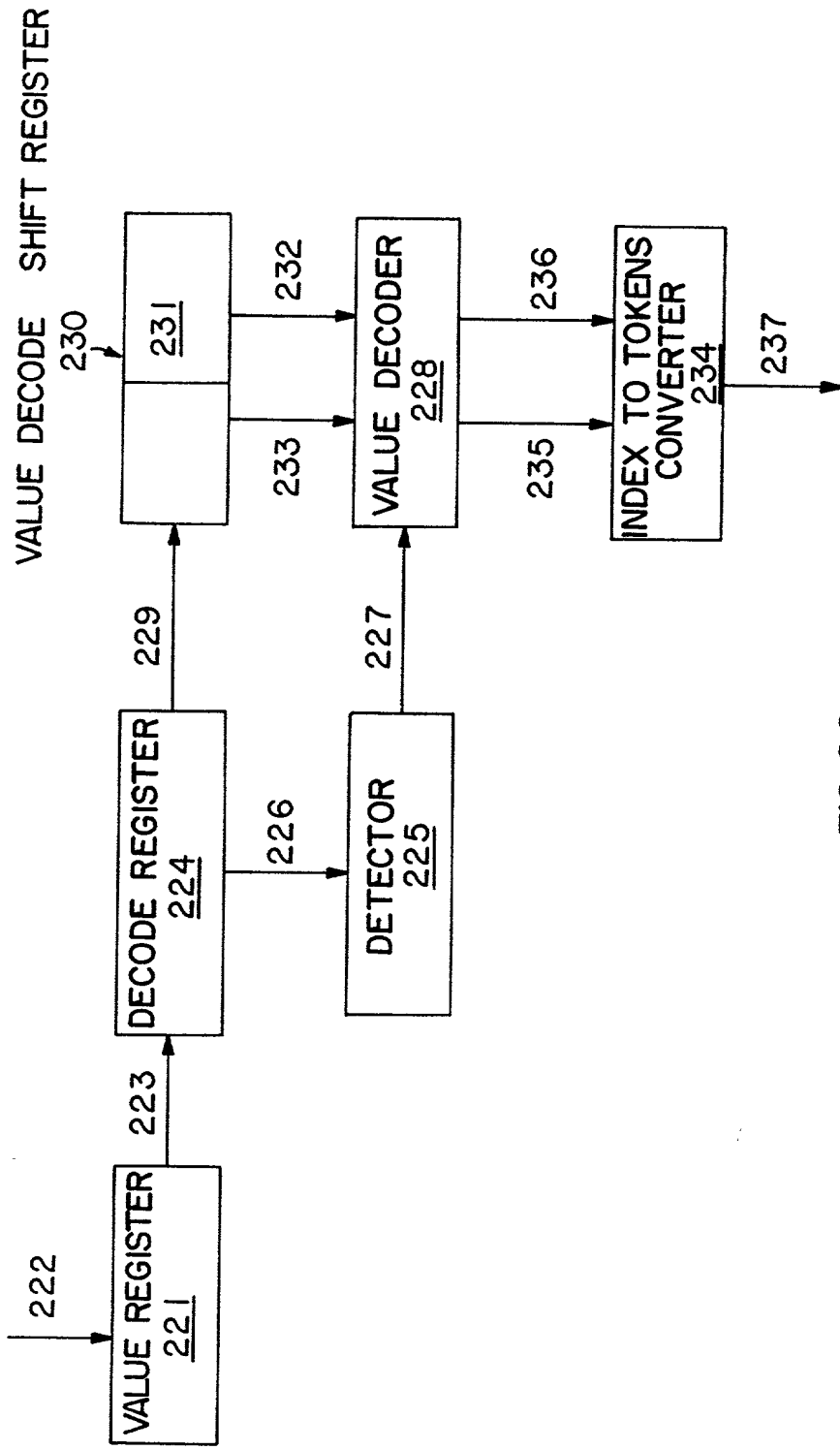


FIG.20

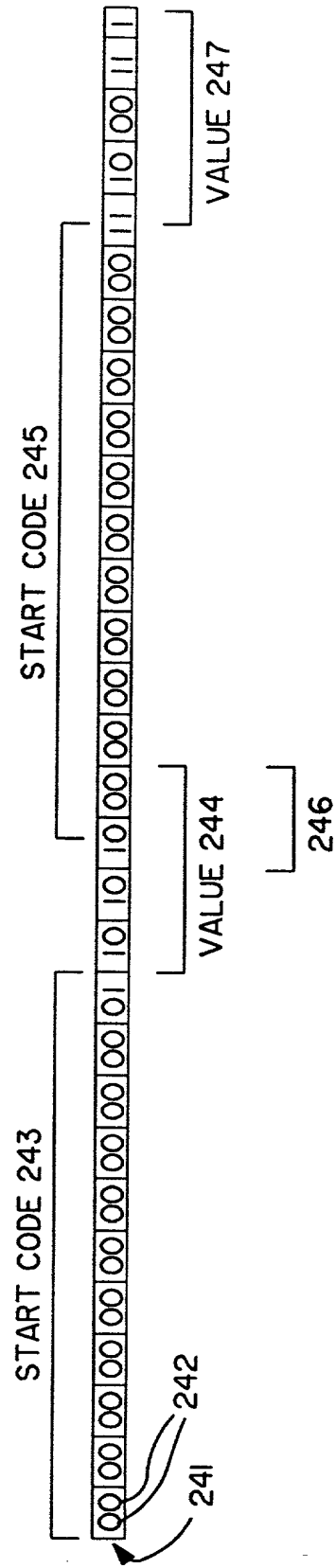


FIG. 21

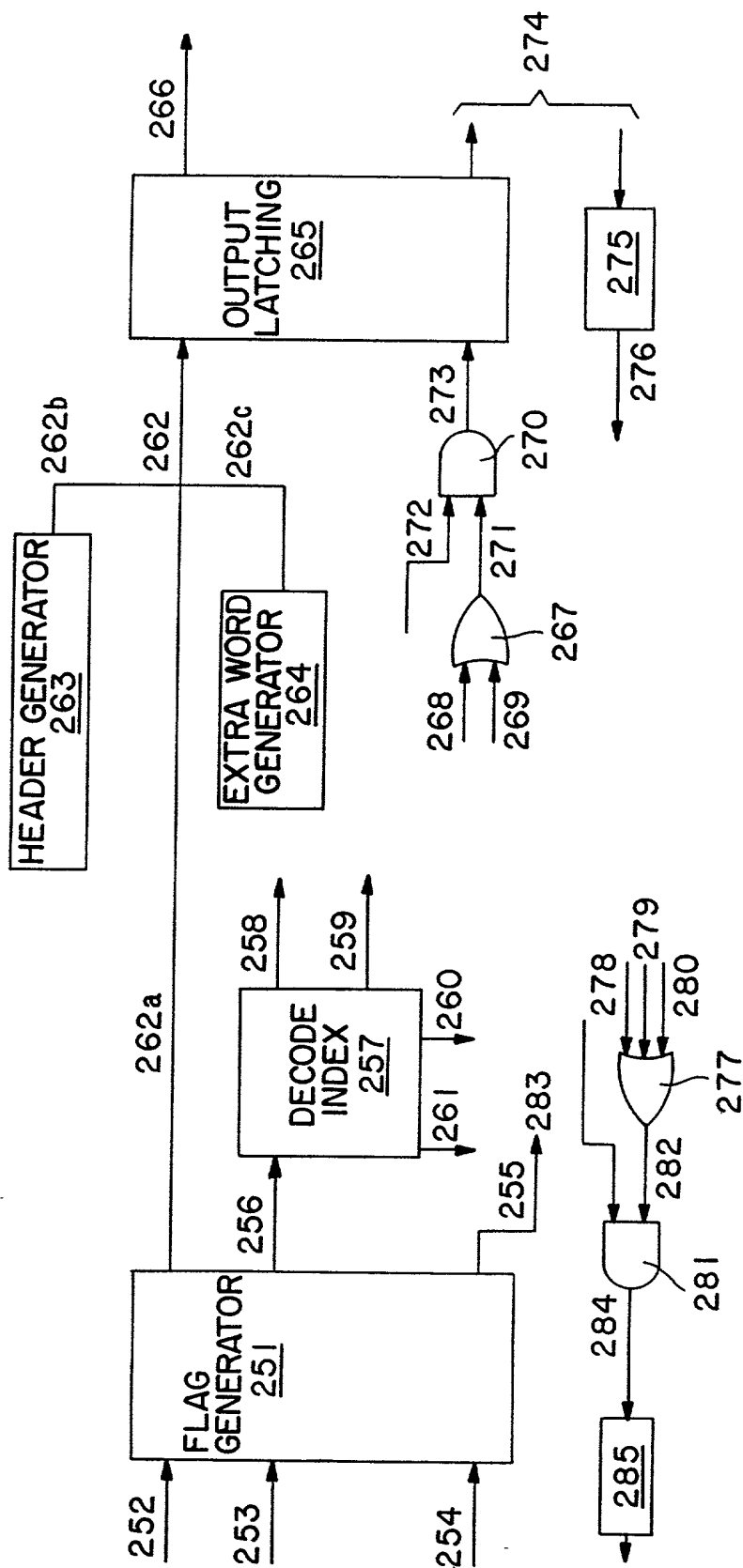


FIG.22

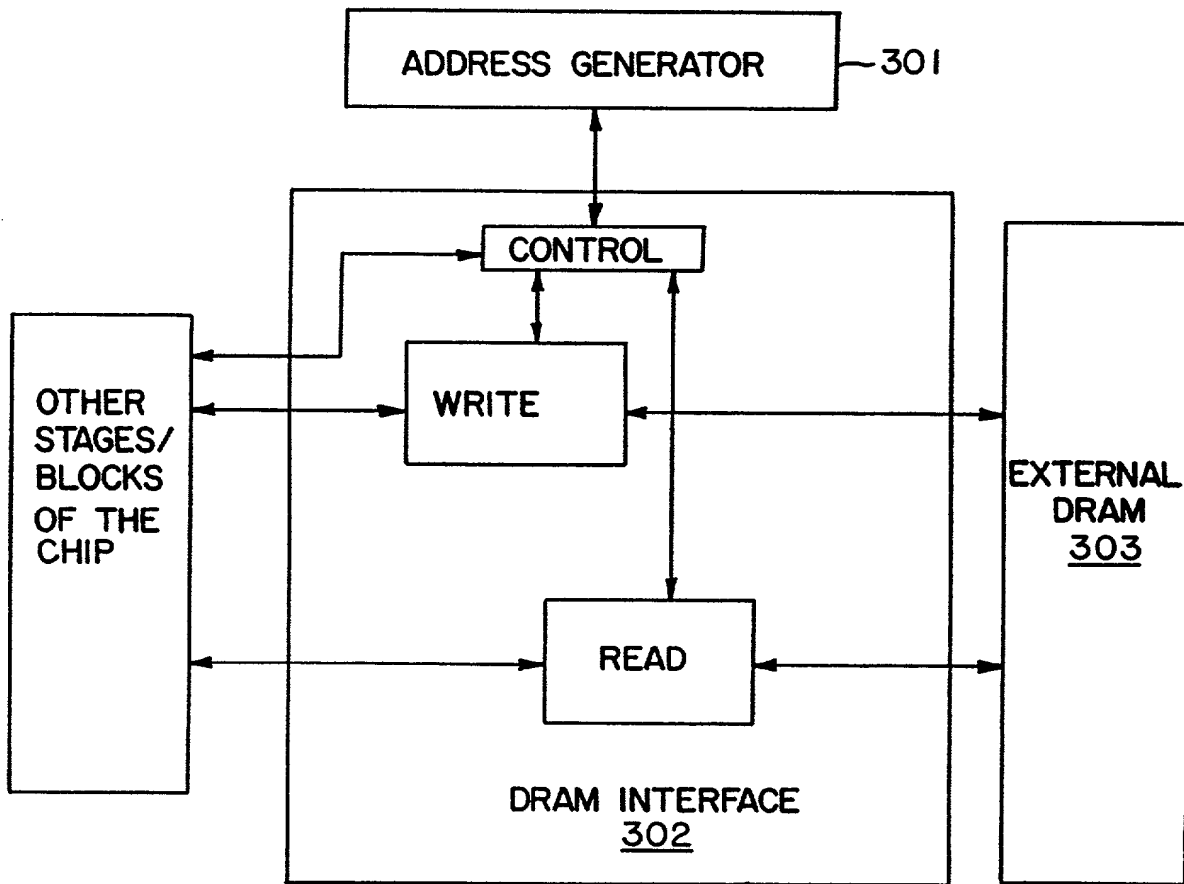


FIG.23

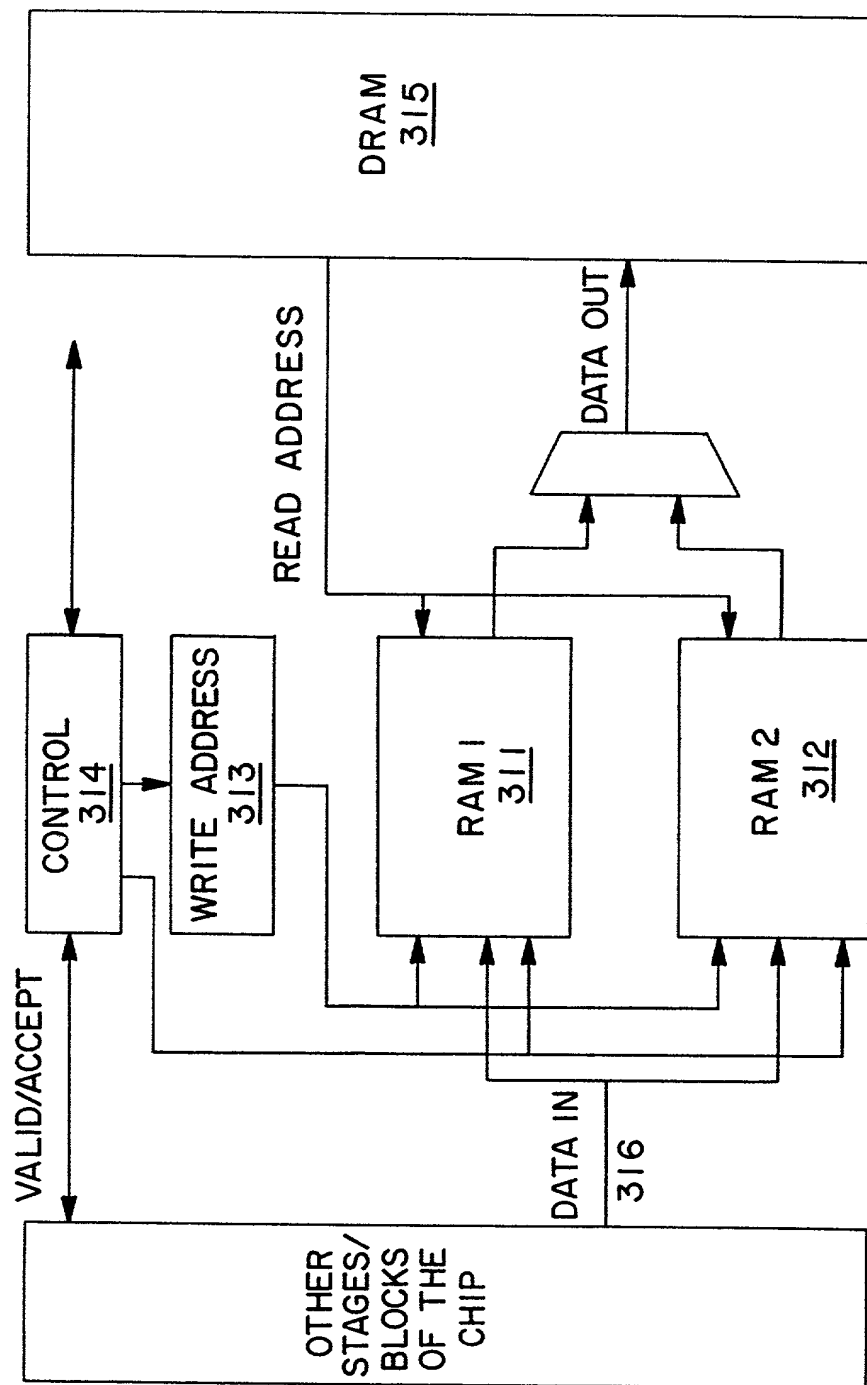


FIG.24

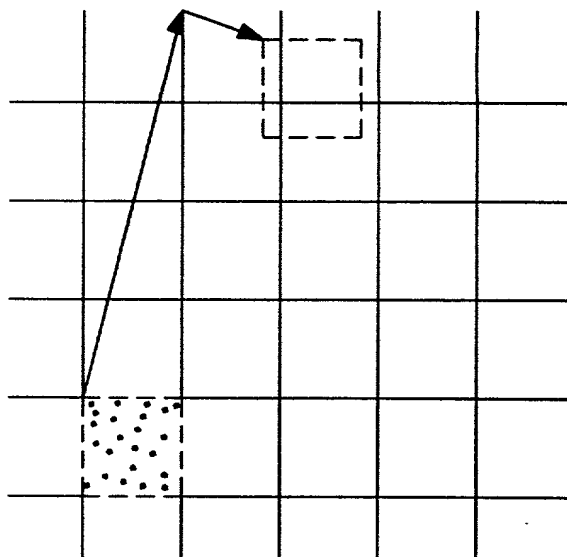


FIG. 25

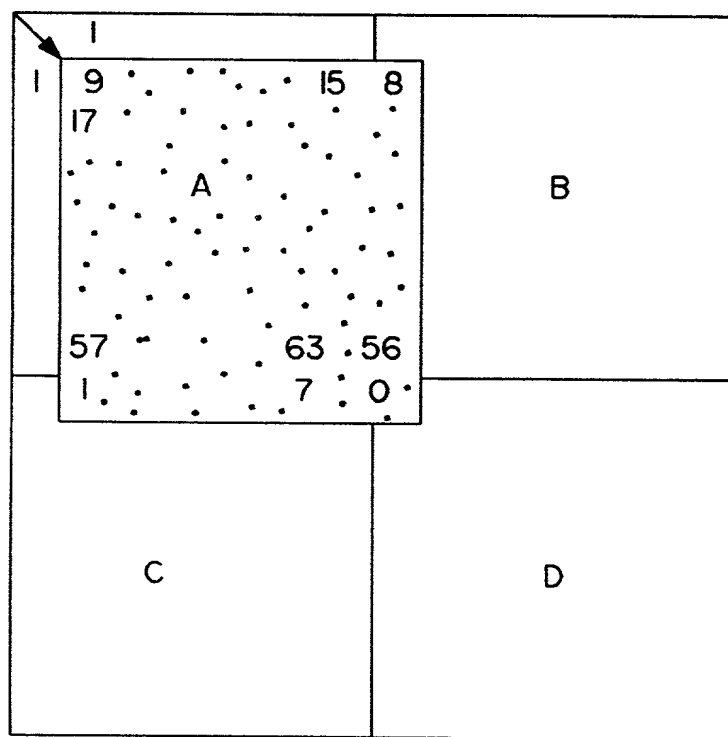


FIG. 26

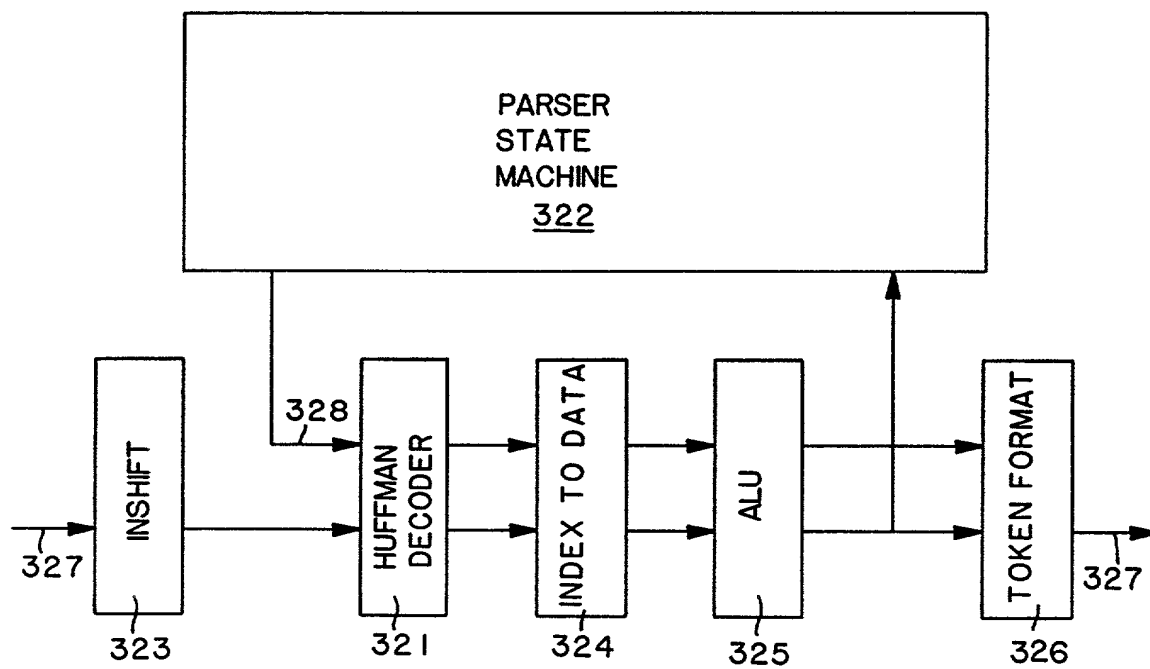


FIG.27

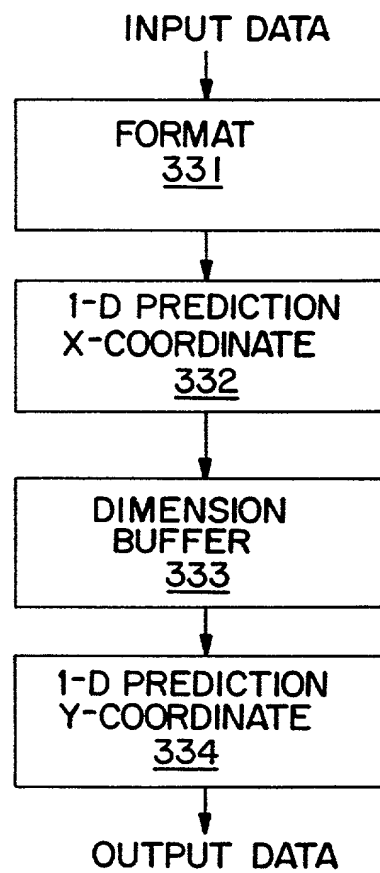


FIG.28

Multiplexed audio/video data

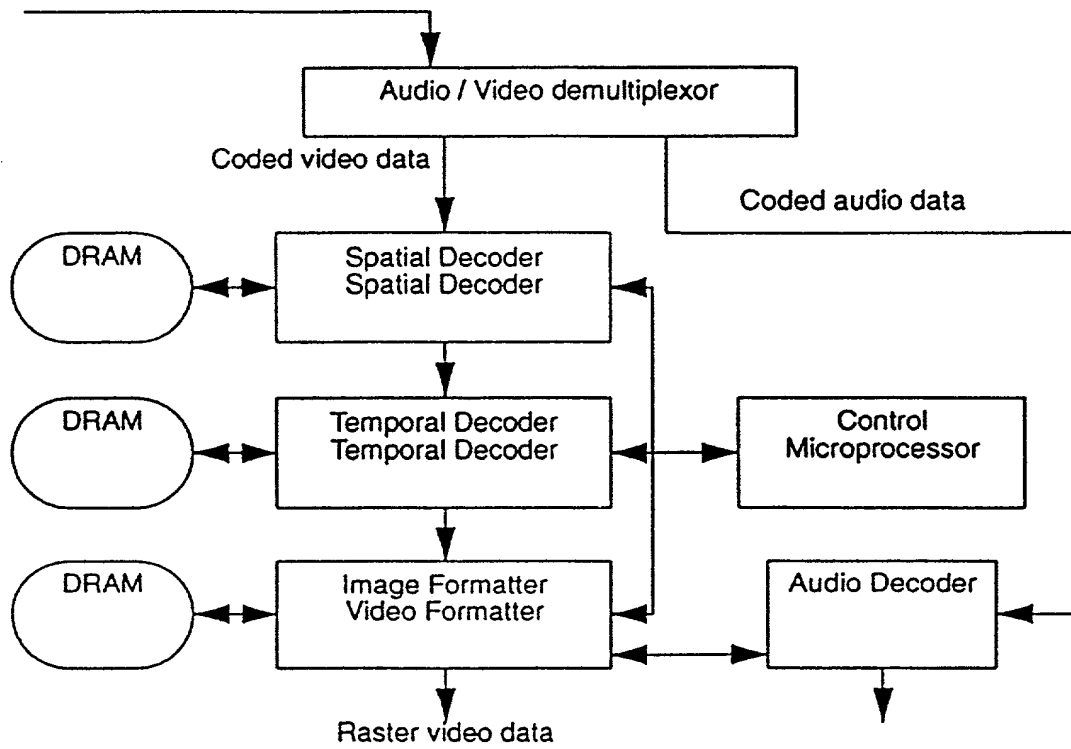


FIG.29

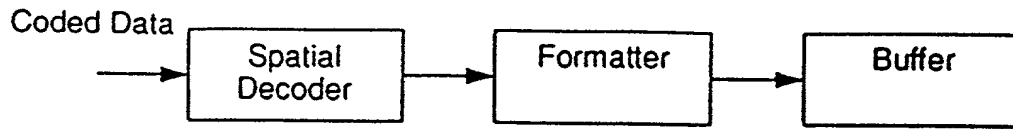


FIG.30

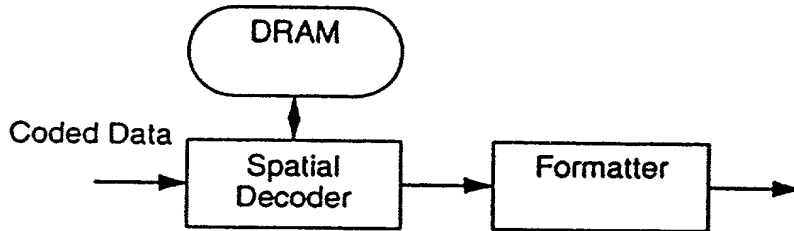


FIG.31

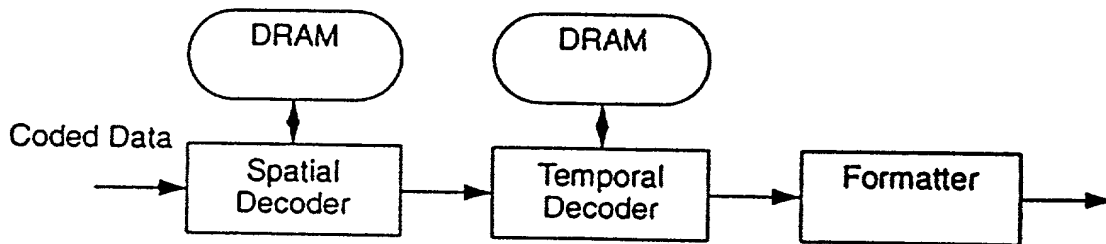


FIG.32

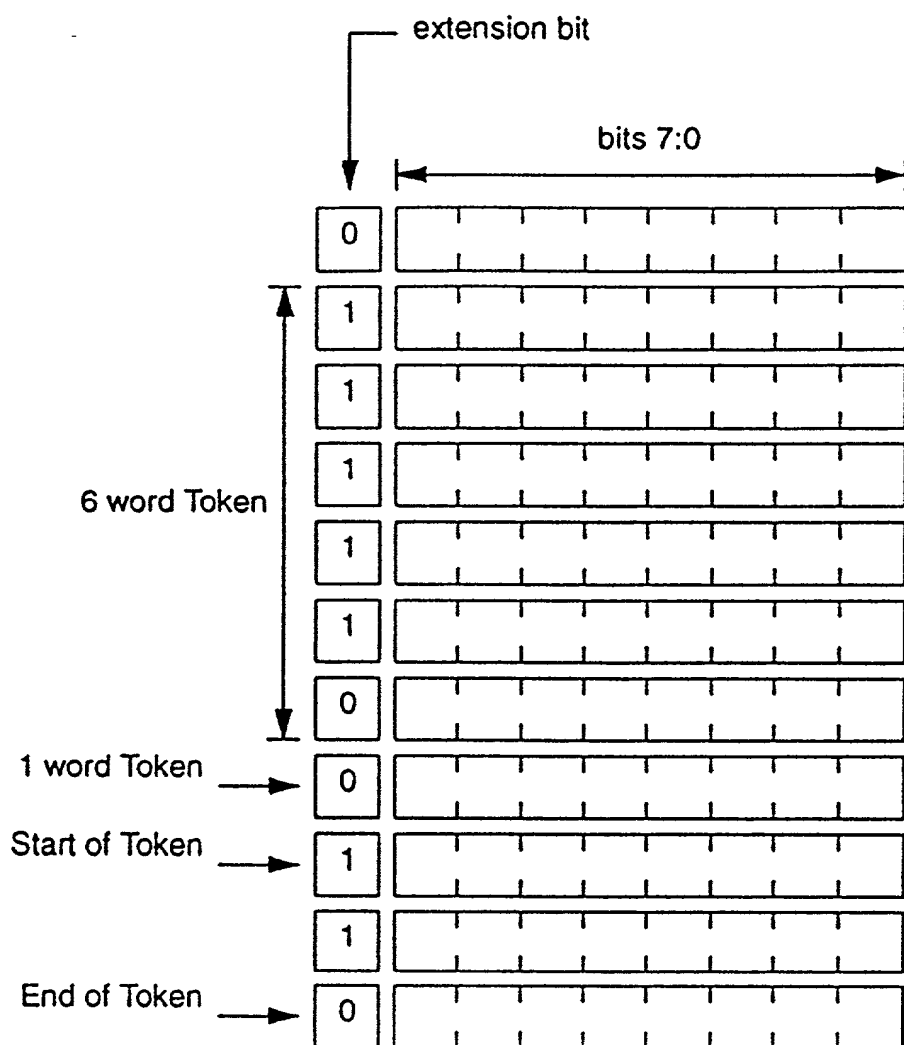


FIG.33

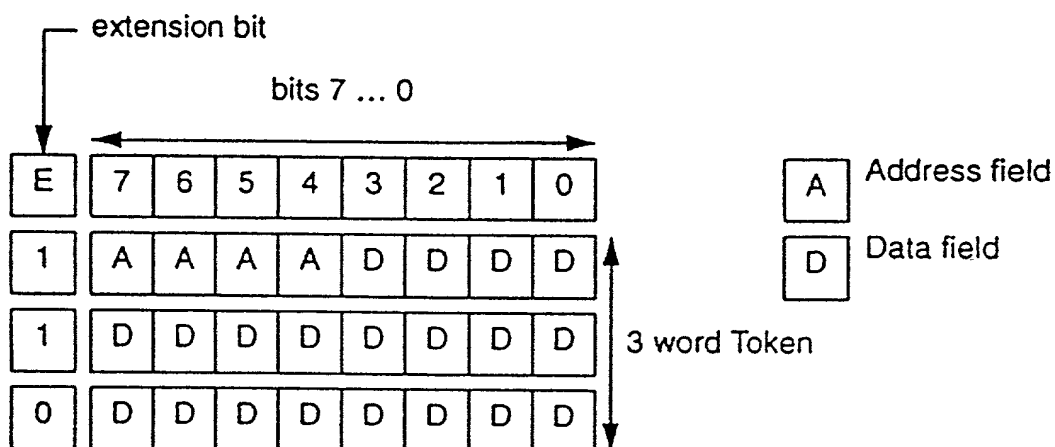


FIG.34

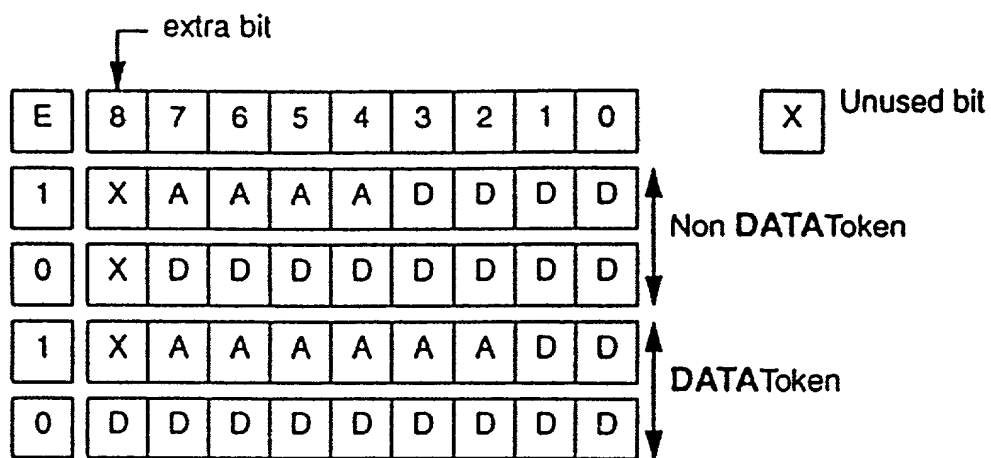
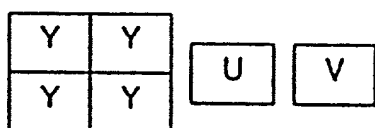


FIG.35



MPEG 4:2:0
macroblock

FIG.36A



JPEG 2:1:1
macroblock

FIG.36B

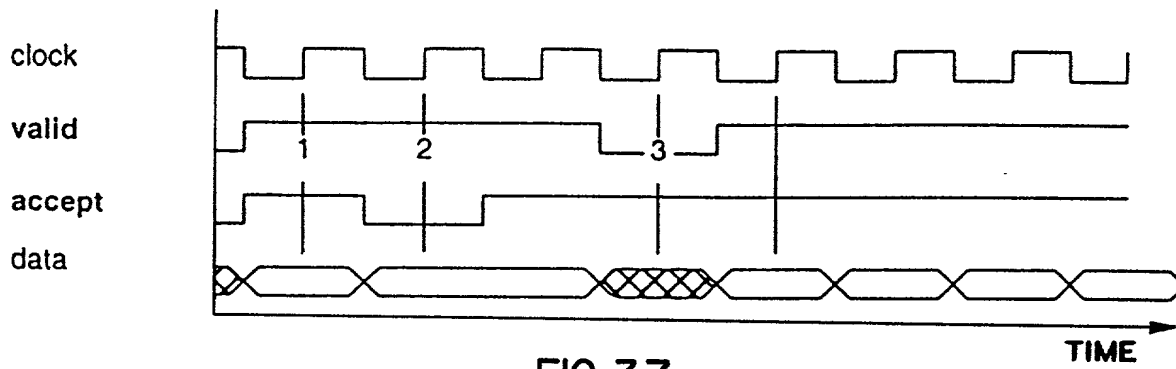


FIG.37

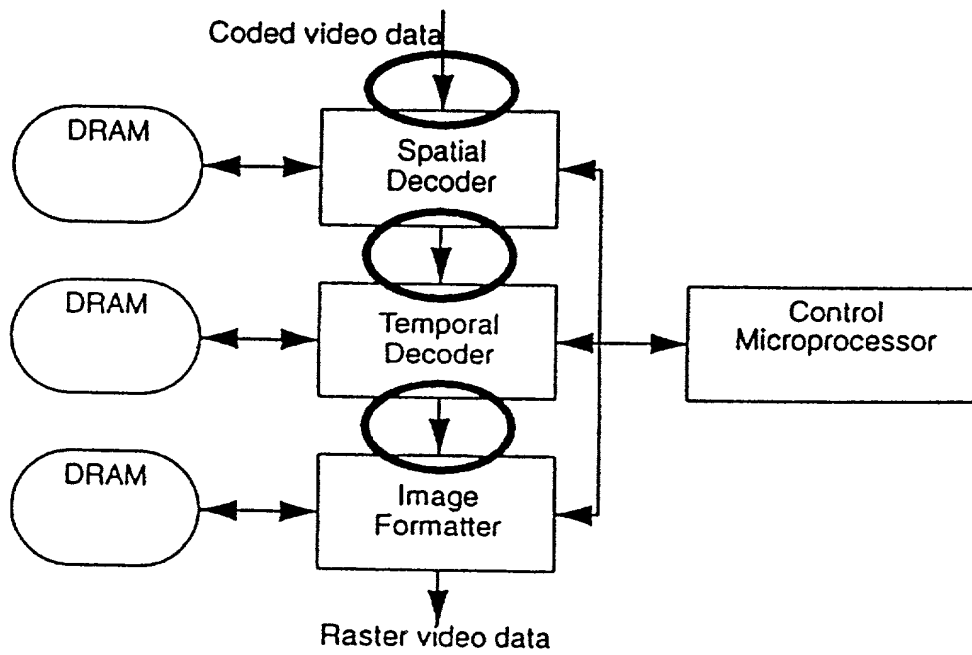


FIG.38

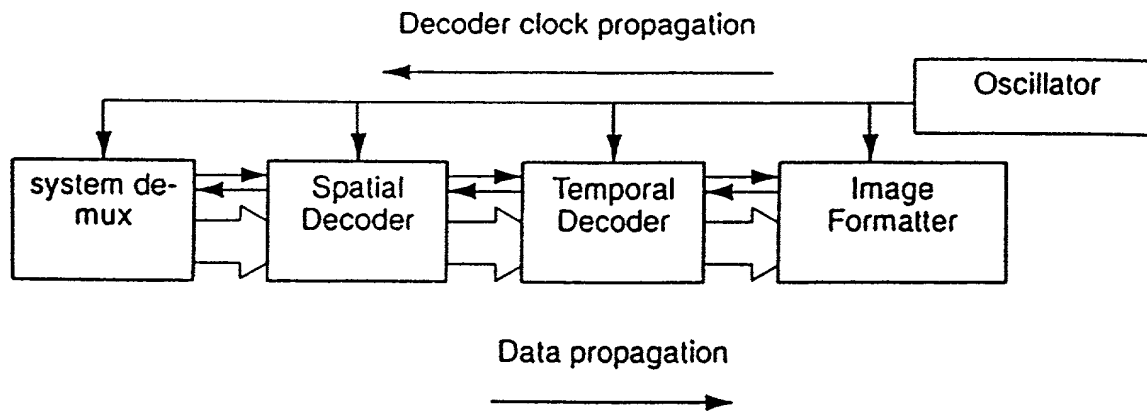


FIG.39

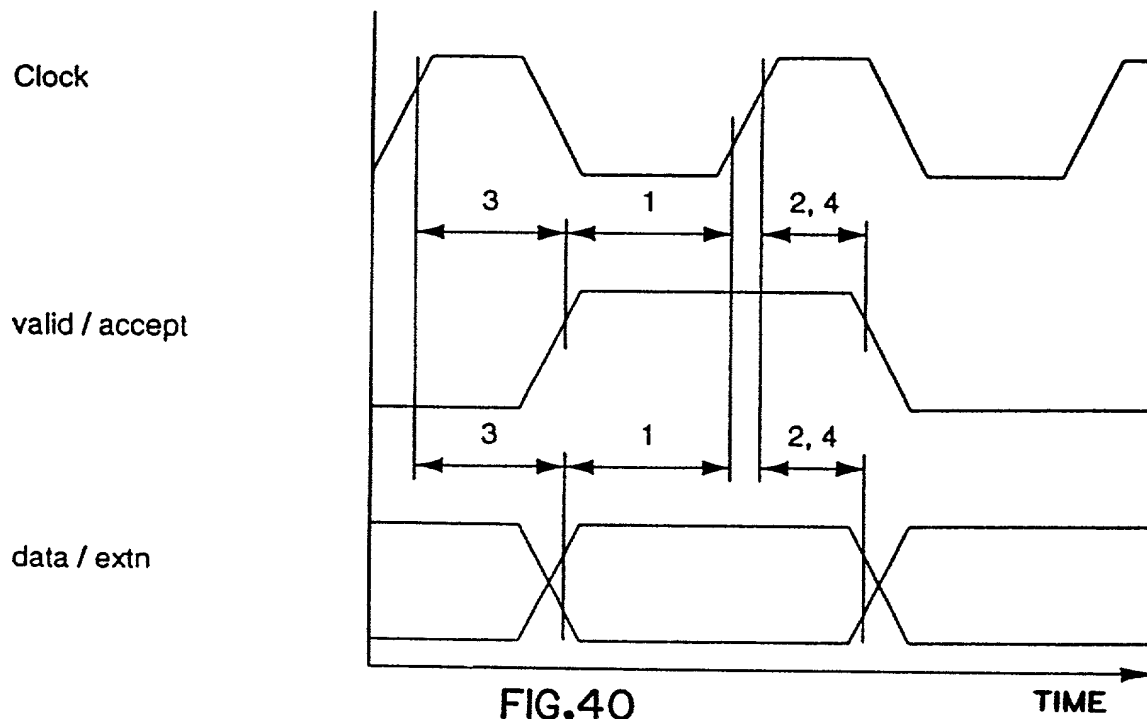


FIG.40



FIG.4 I

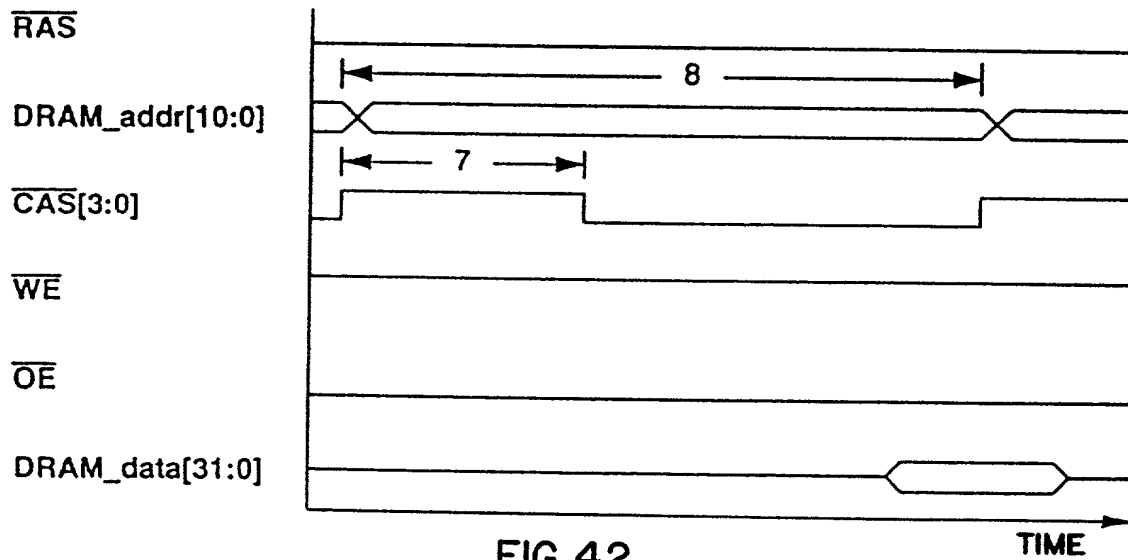


FIG.42

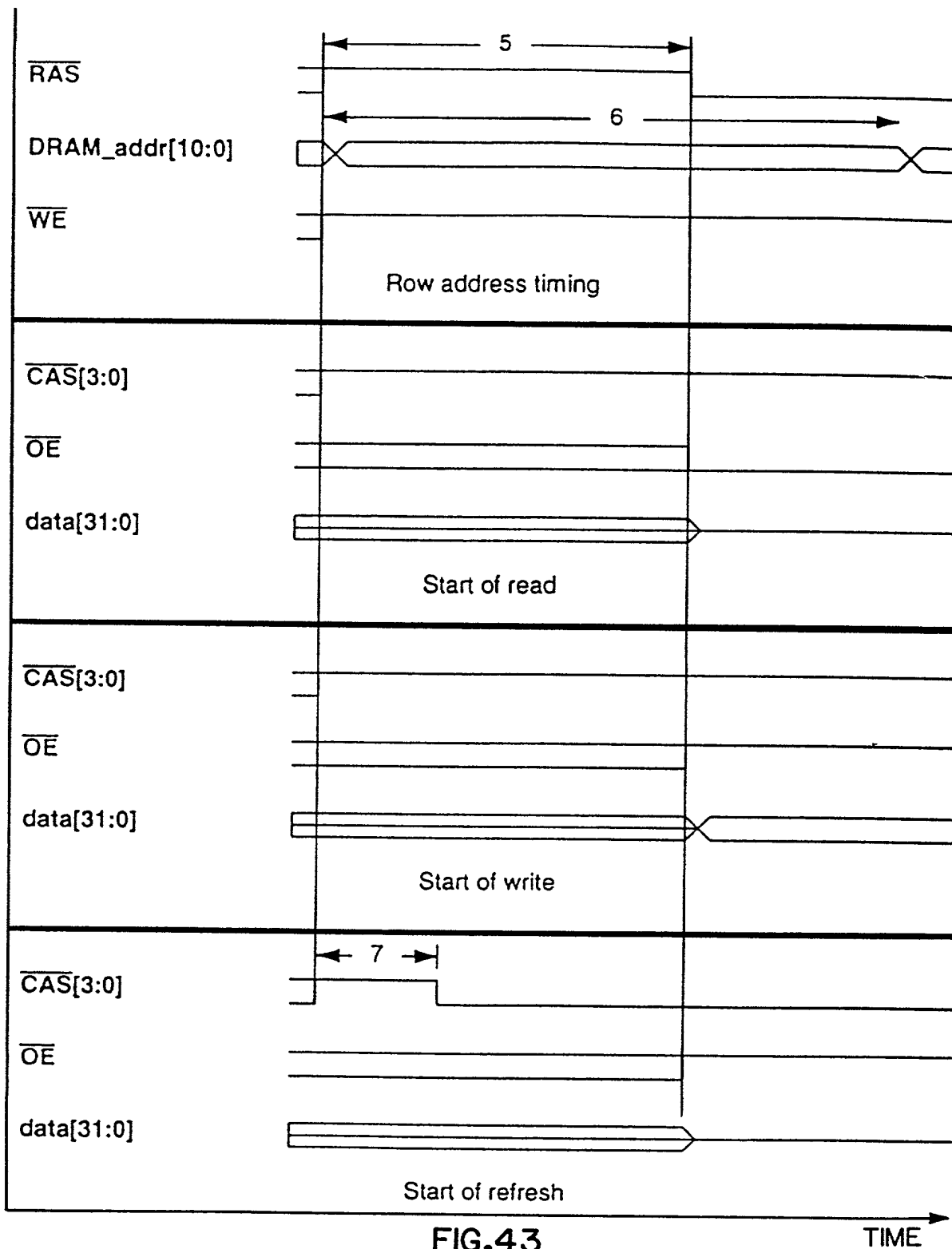


FIG.43

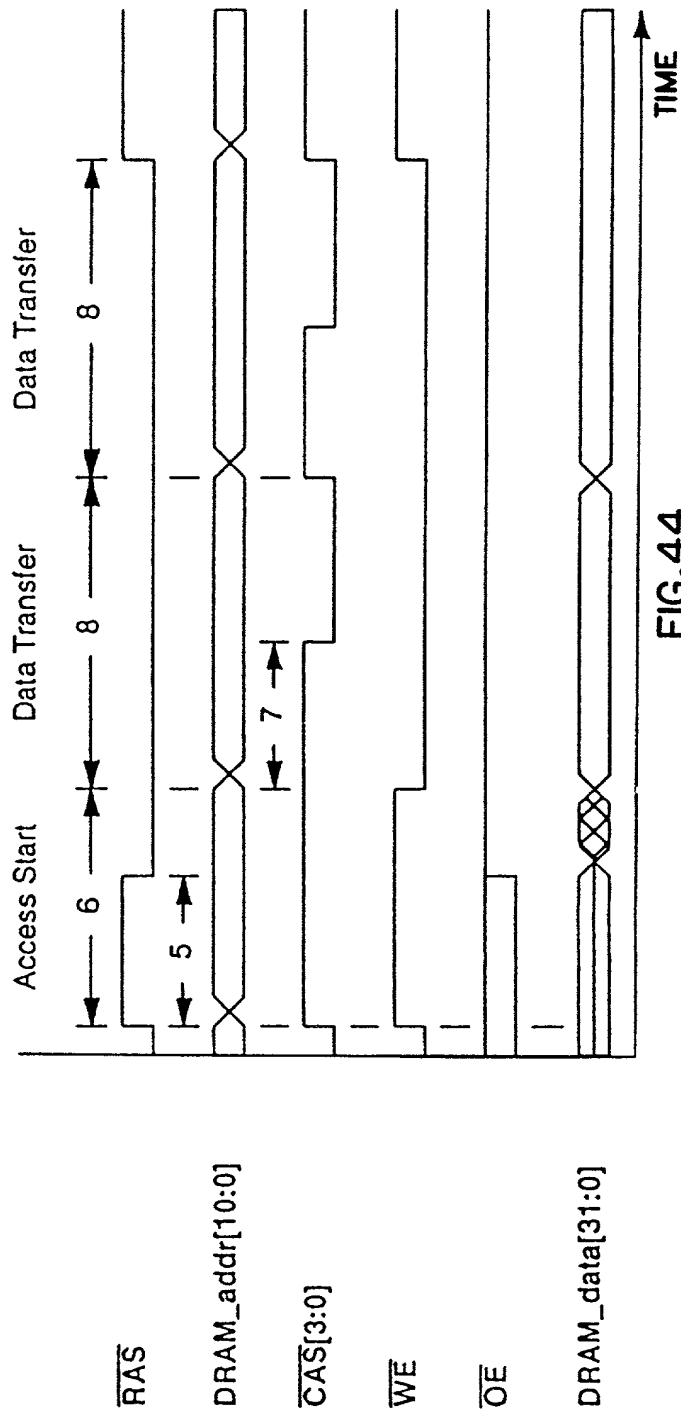


FIG.44

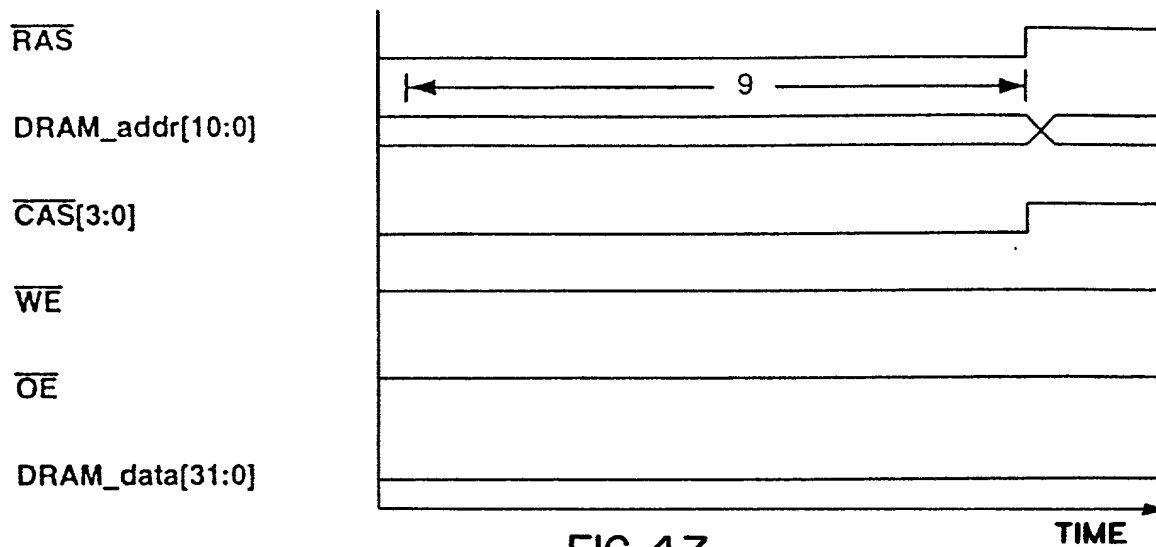


FIG.47

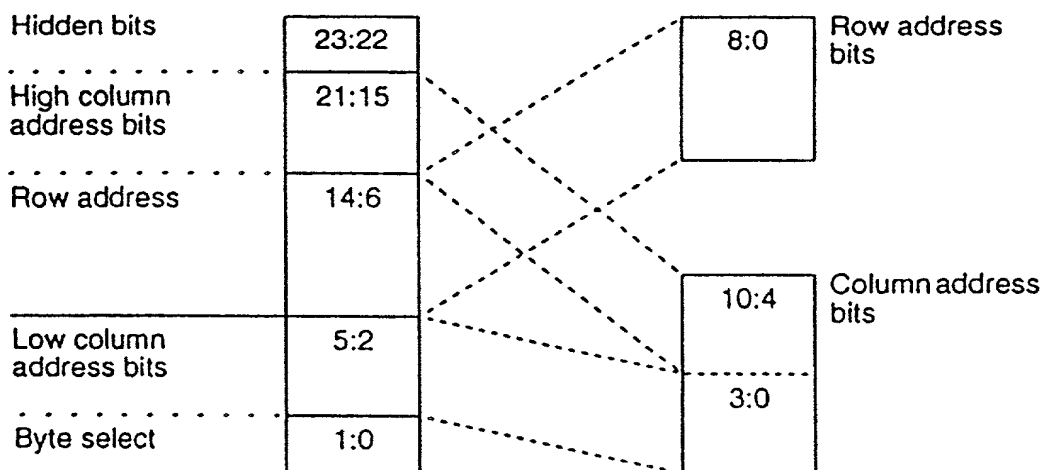
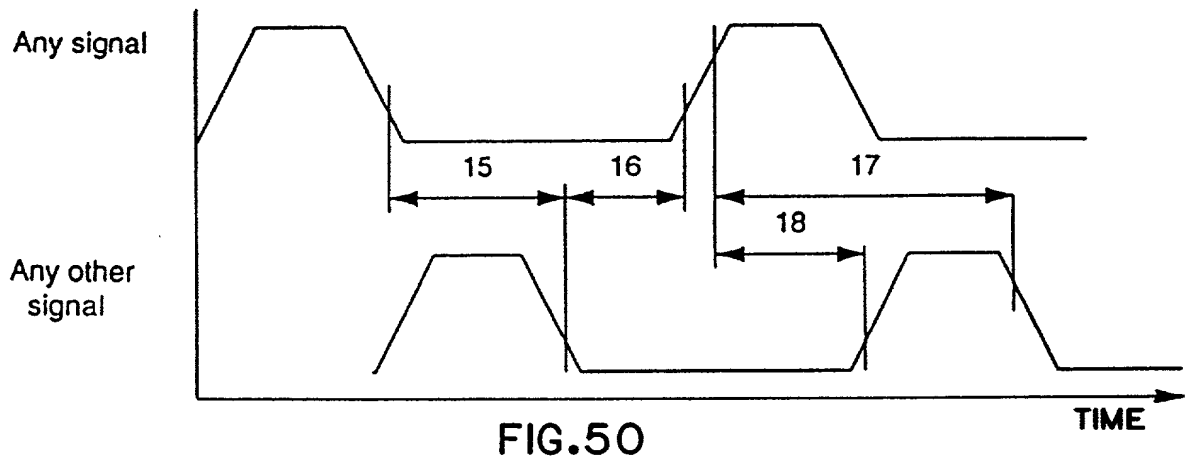
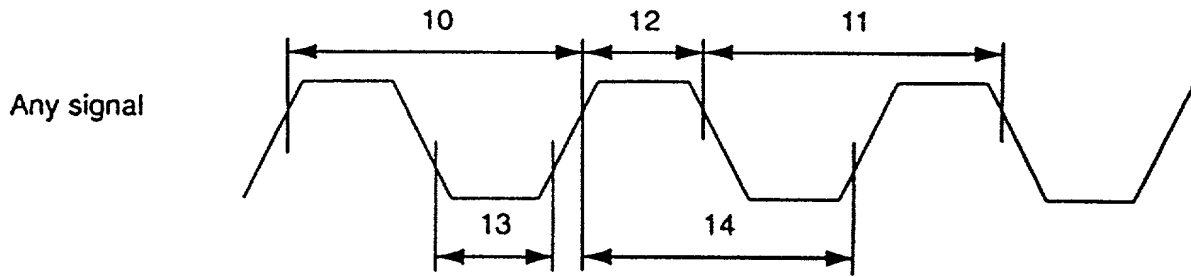


FIG.48



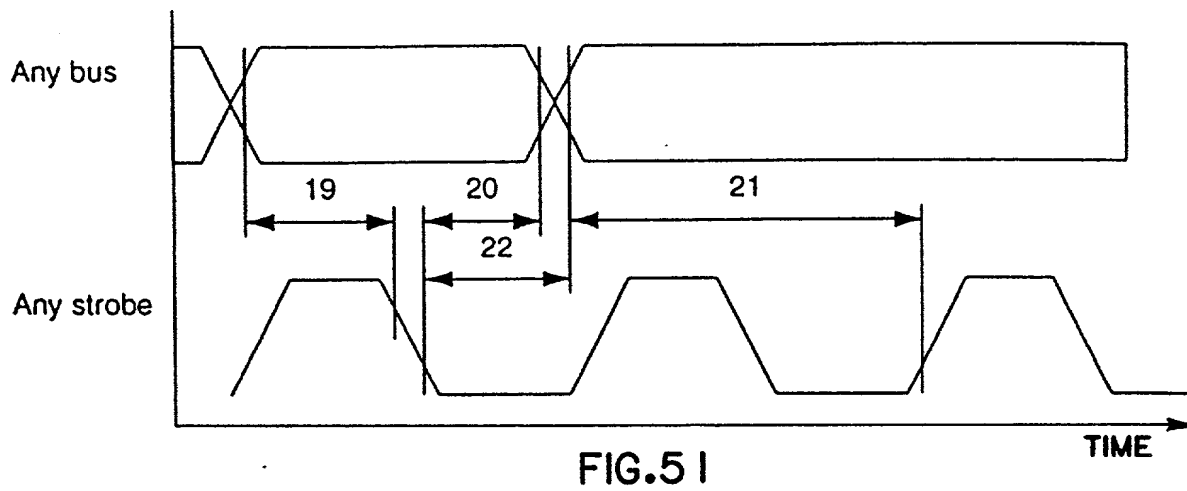


FIG.51

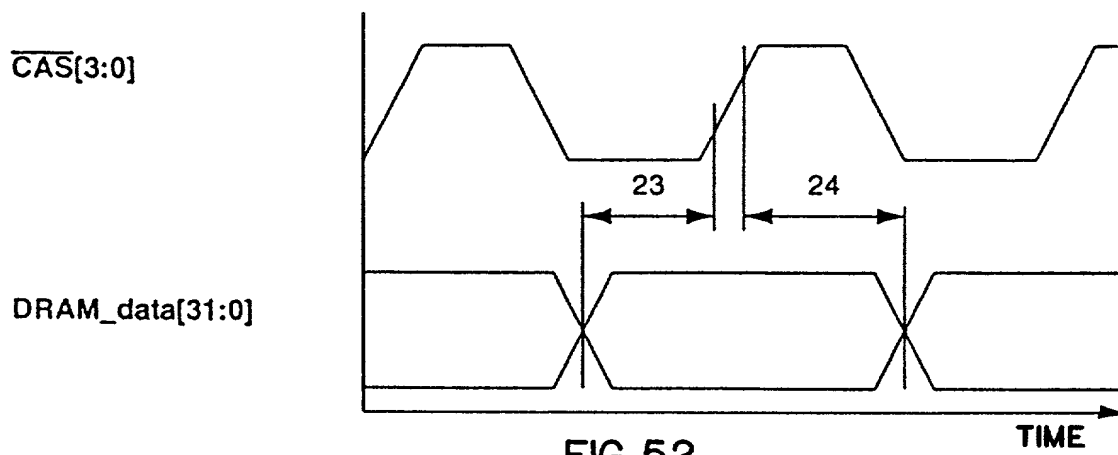


FIG.52

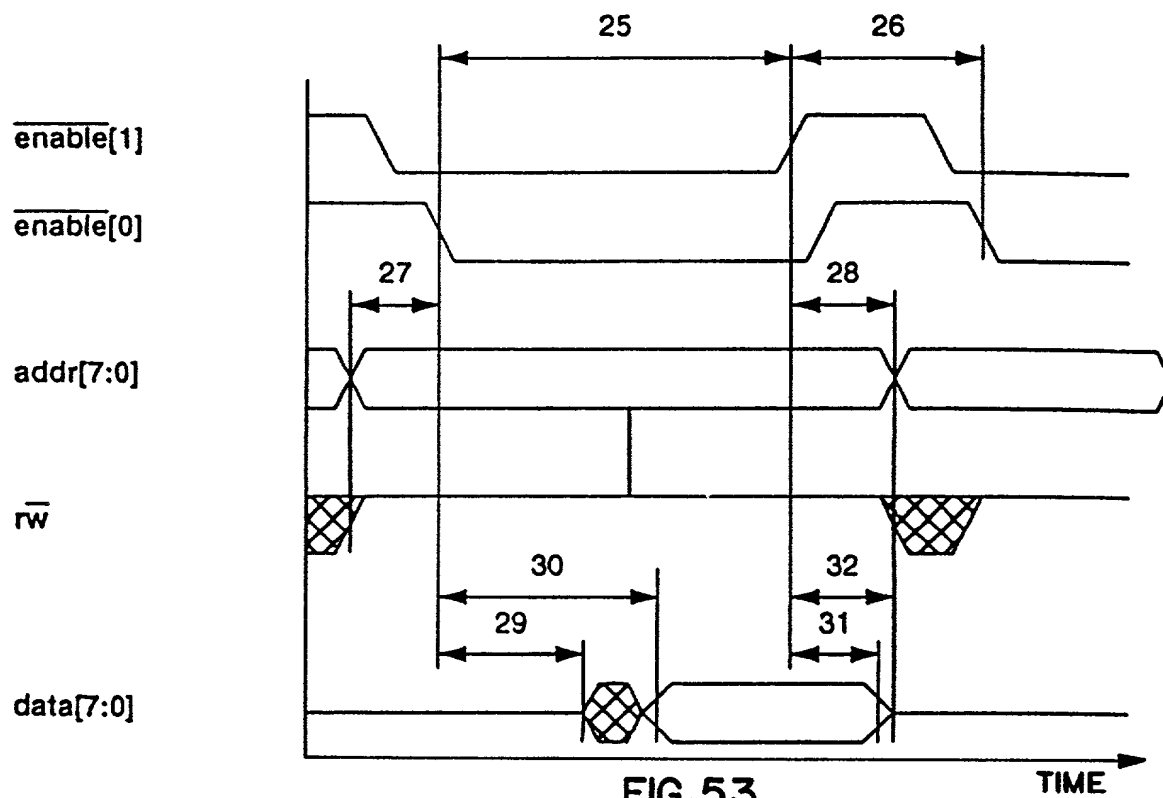


FIG.53

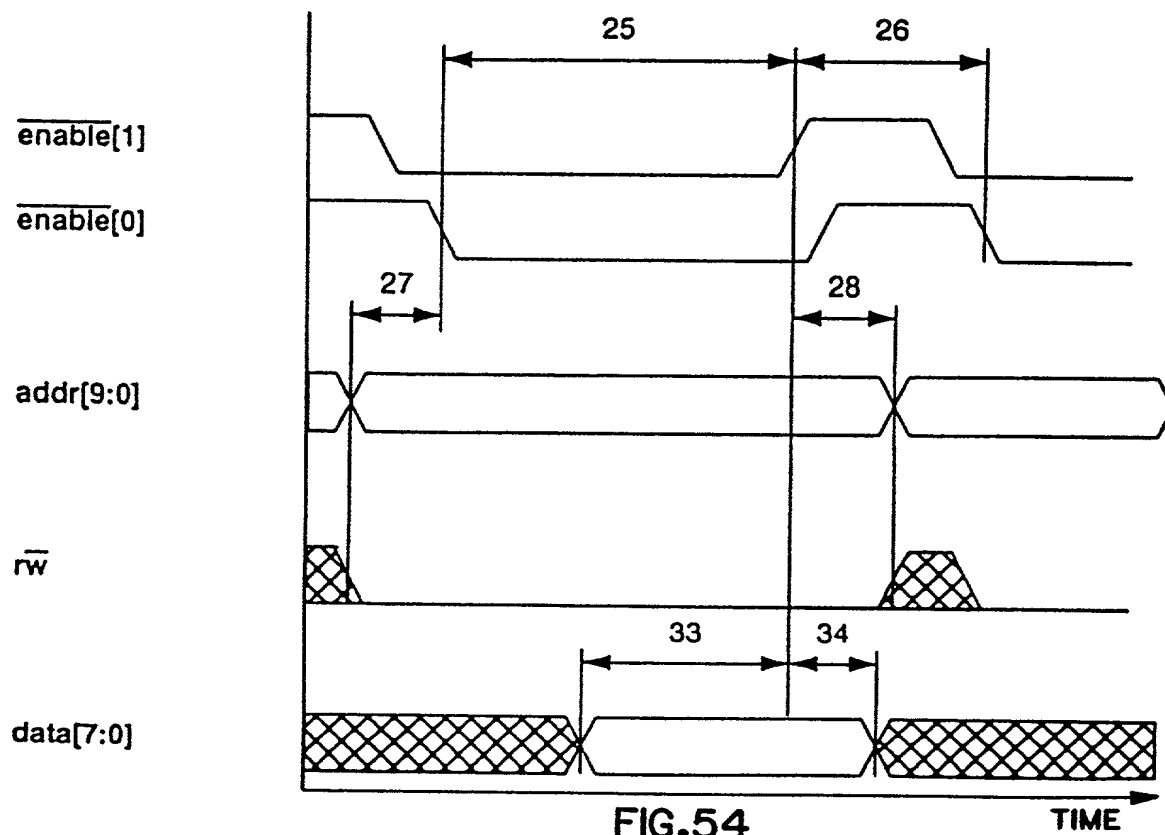


FIG.54

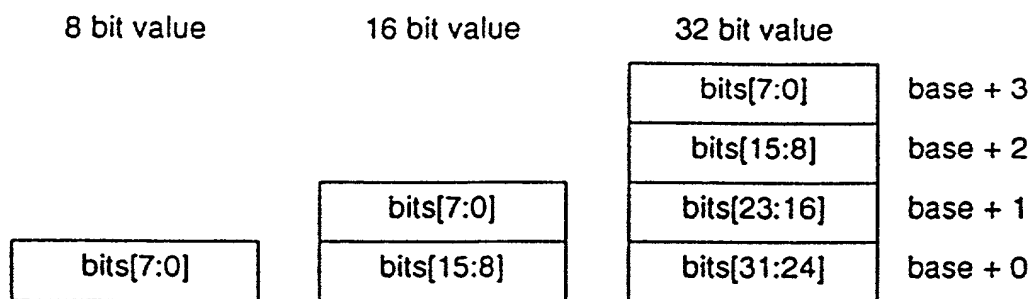


FIG.55

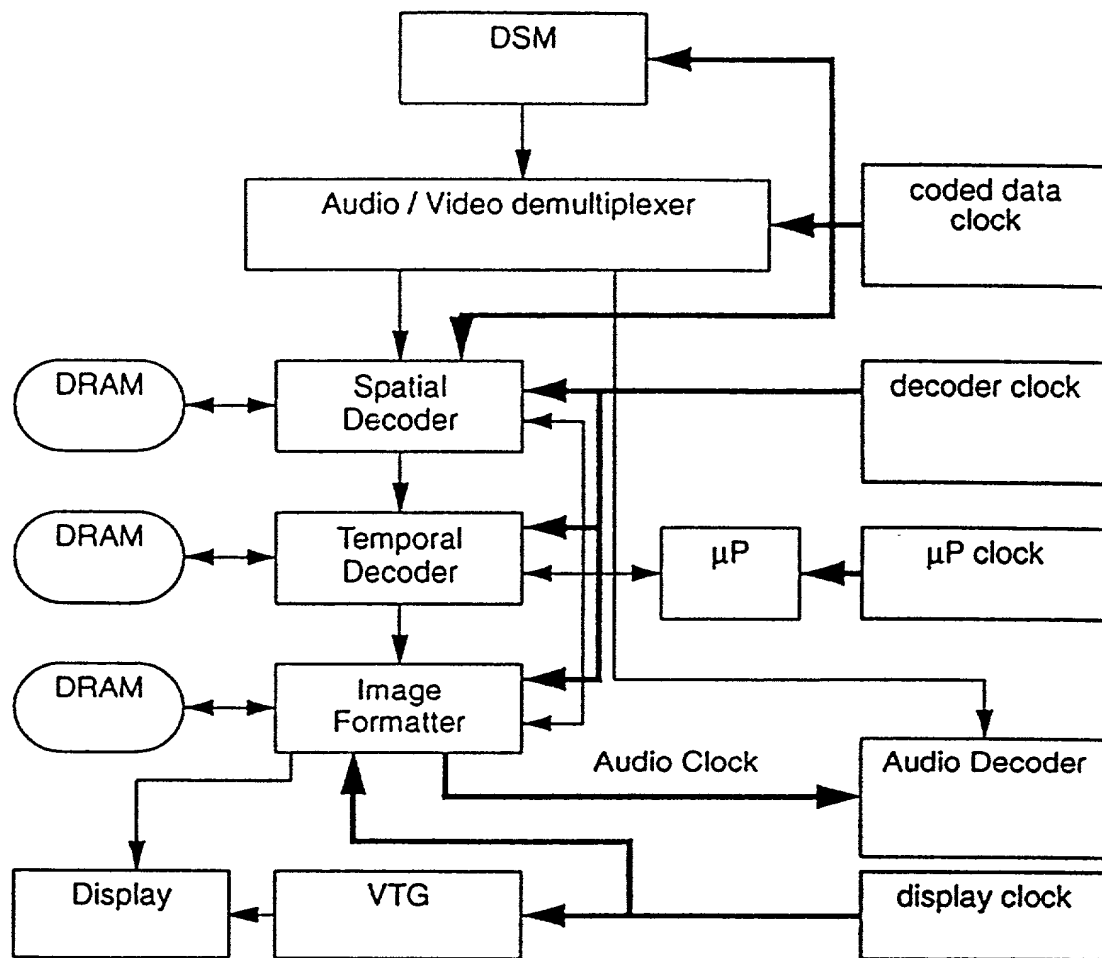


FIG.56

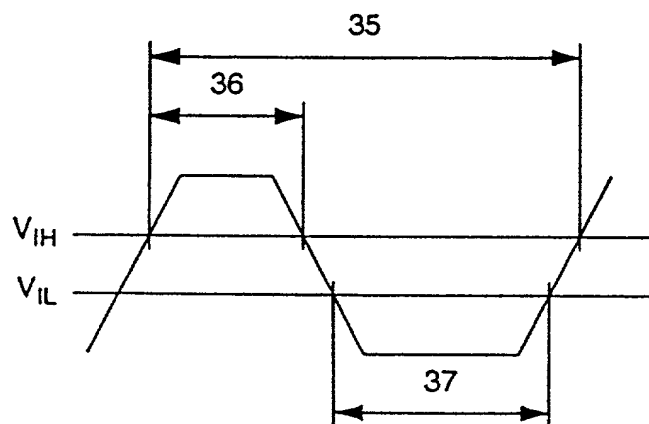


FIG.57

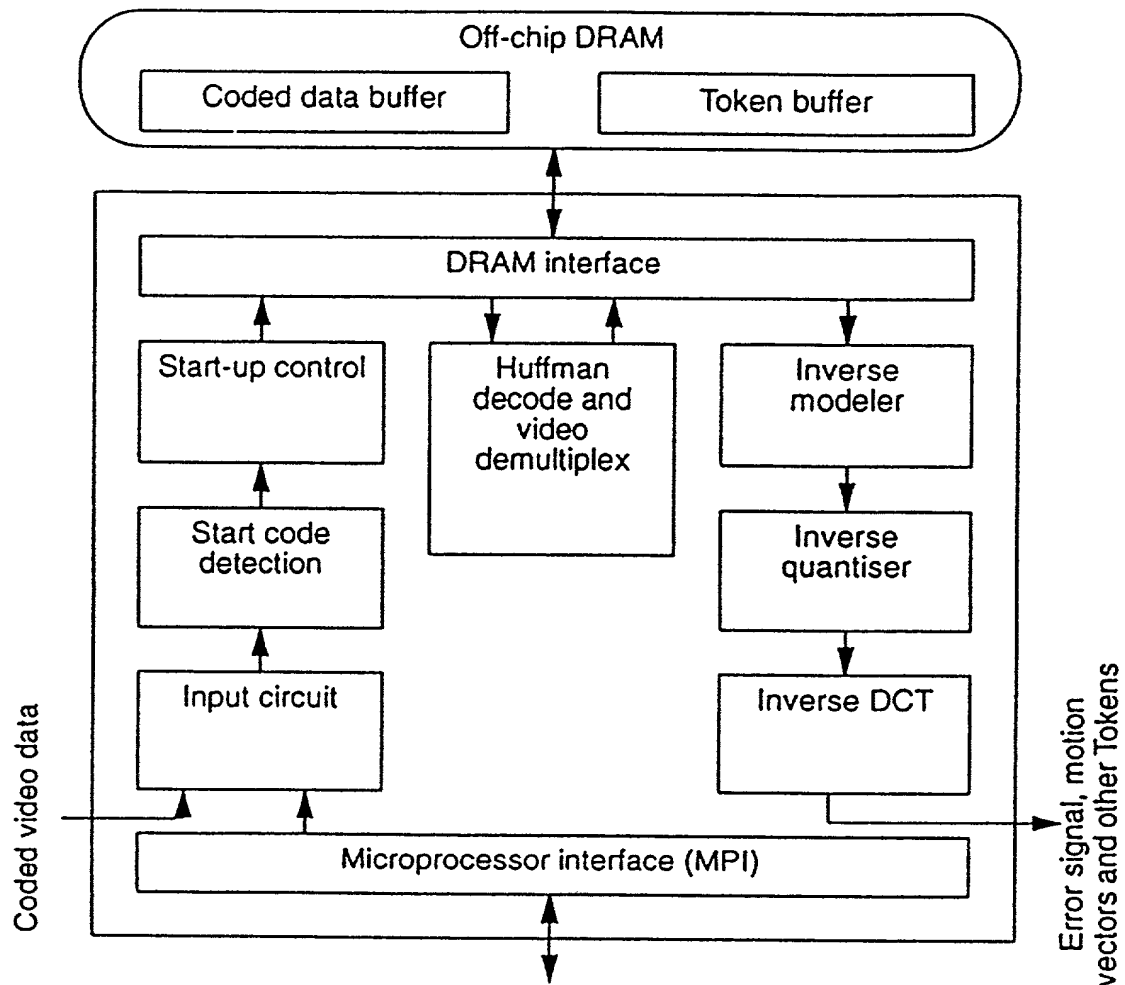


FIG.58

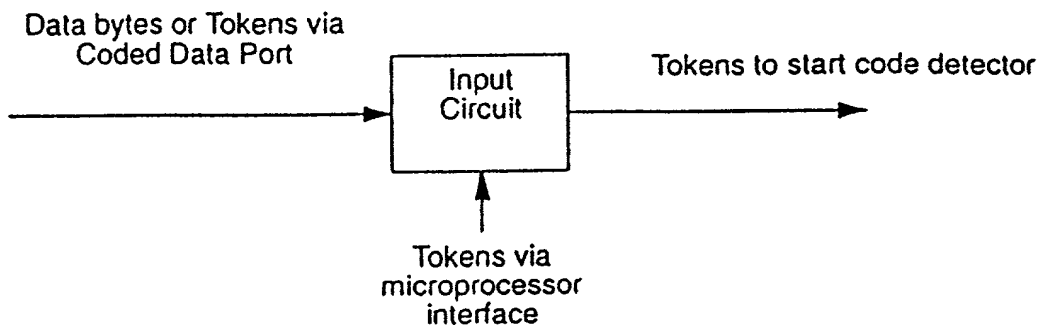


FIG.59

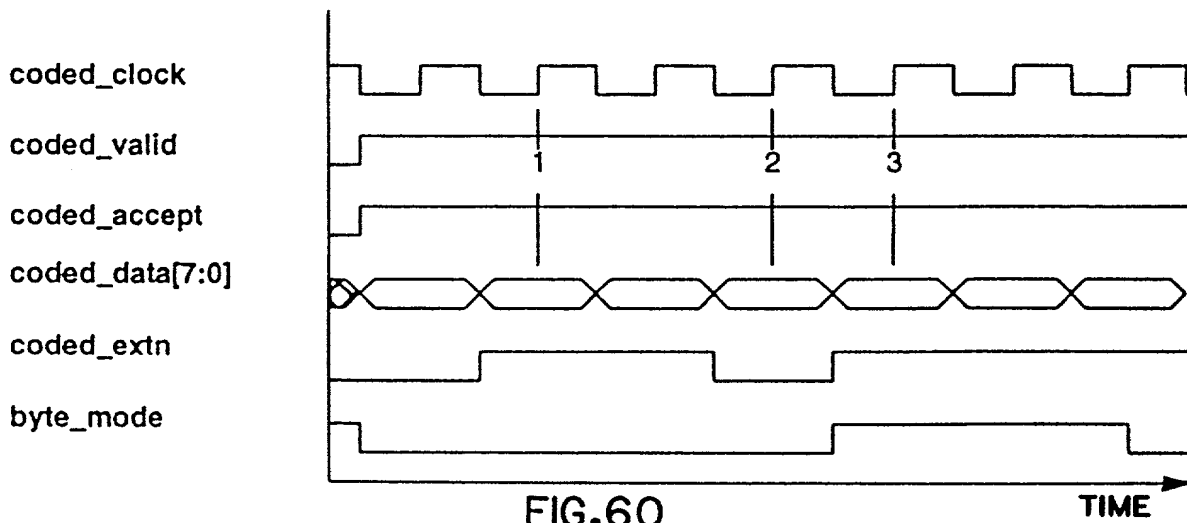


FIG.60

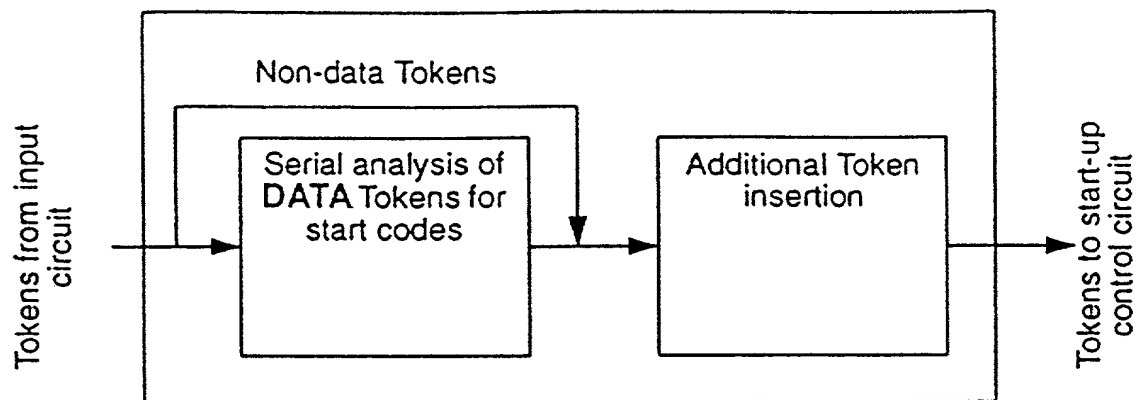


FIG. 61

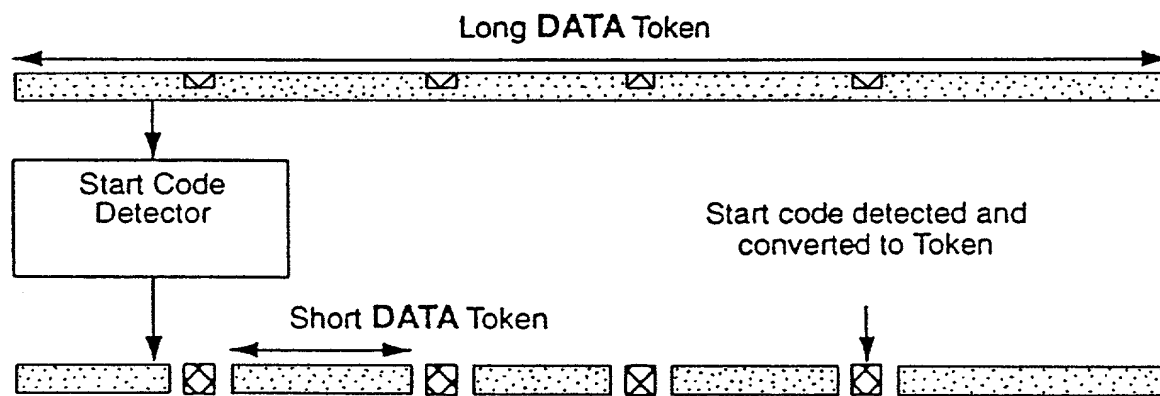


FIG. 62

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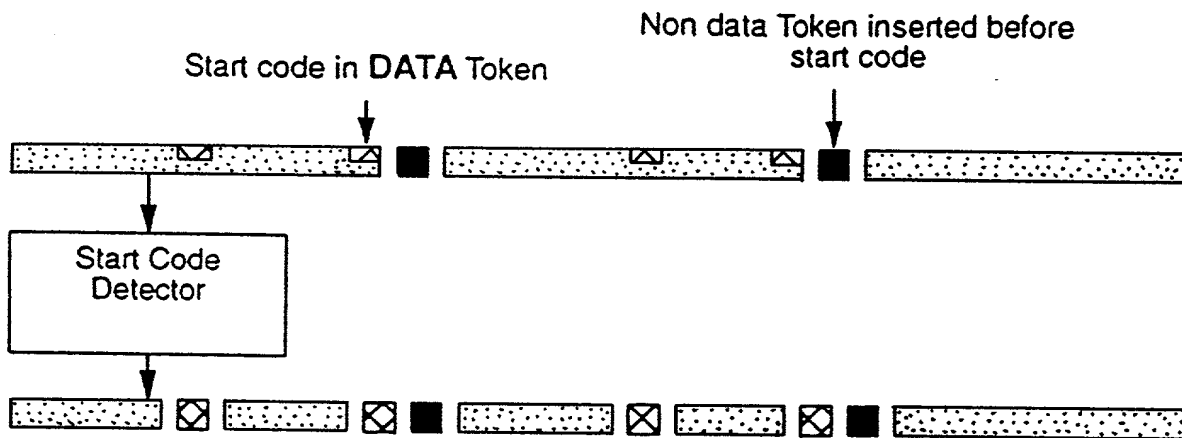


FIG.63

This looks like an MPEG picture start

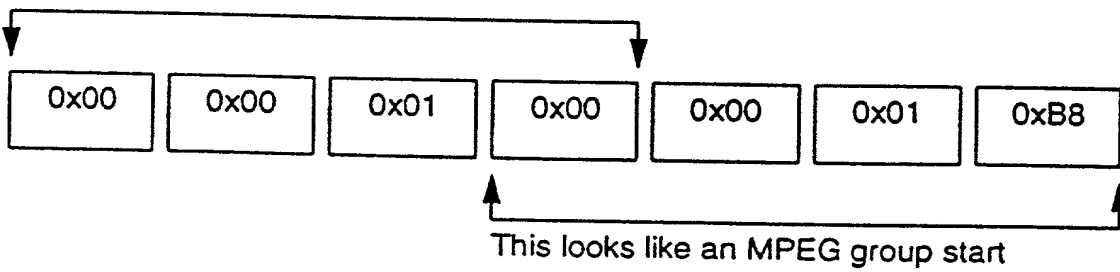


FIG.64

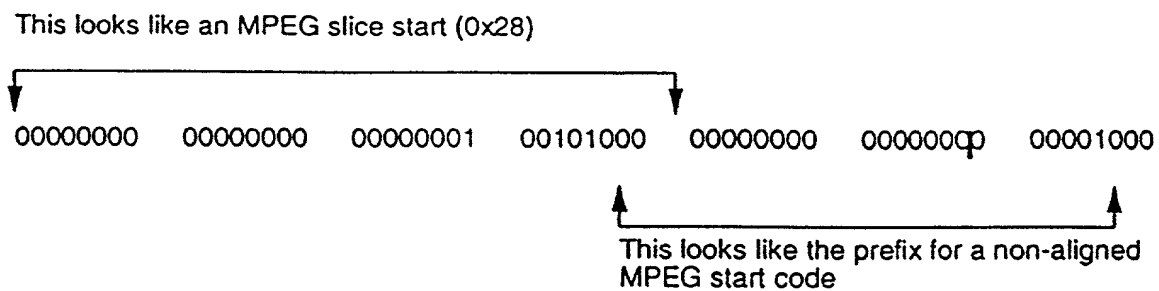


FIG.65

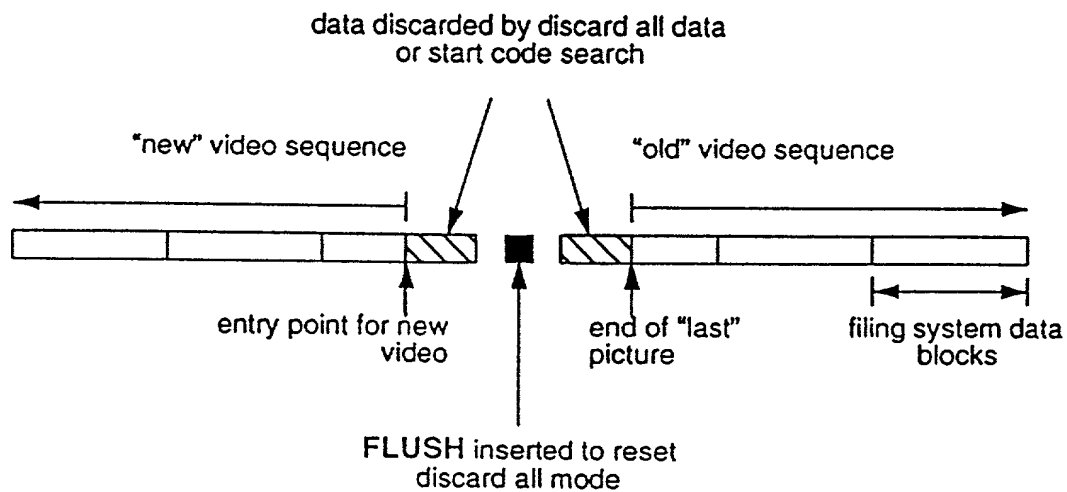


FIG.66

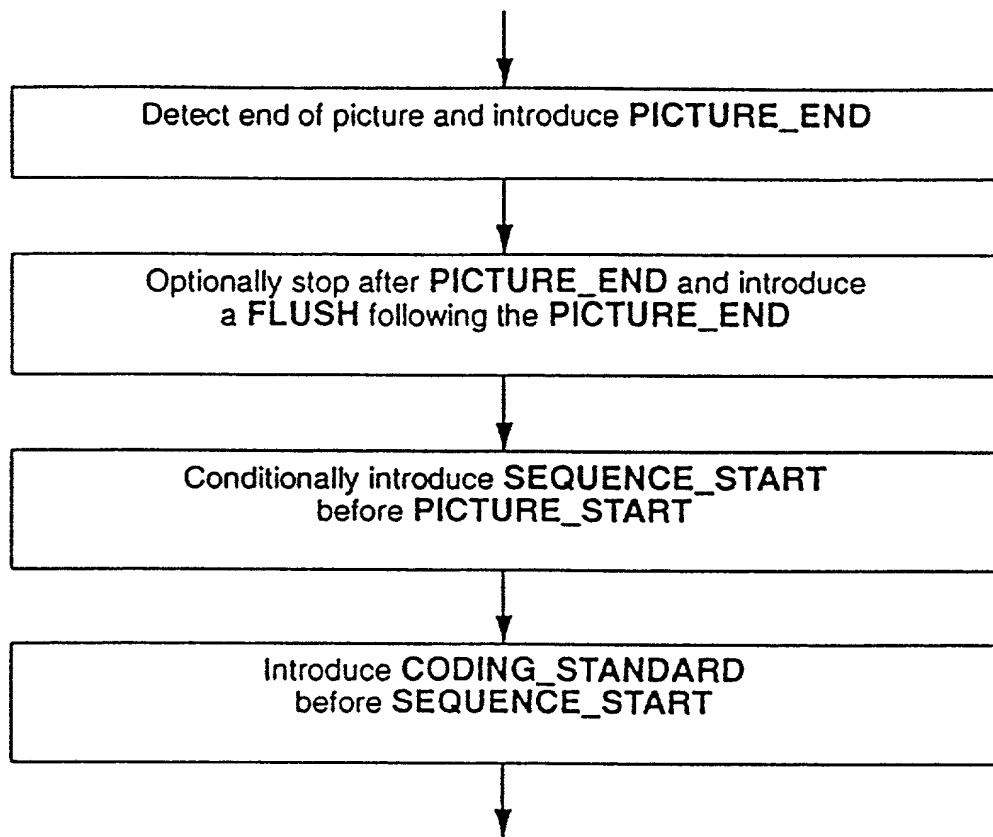


FIG.67

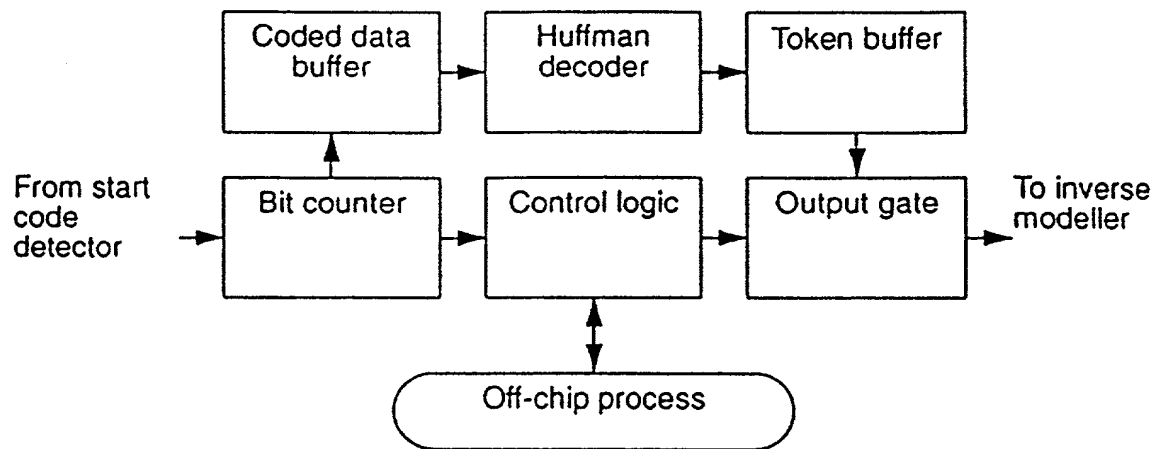


FIG.68

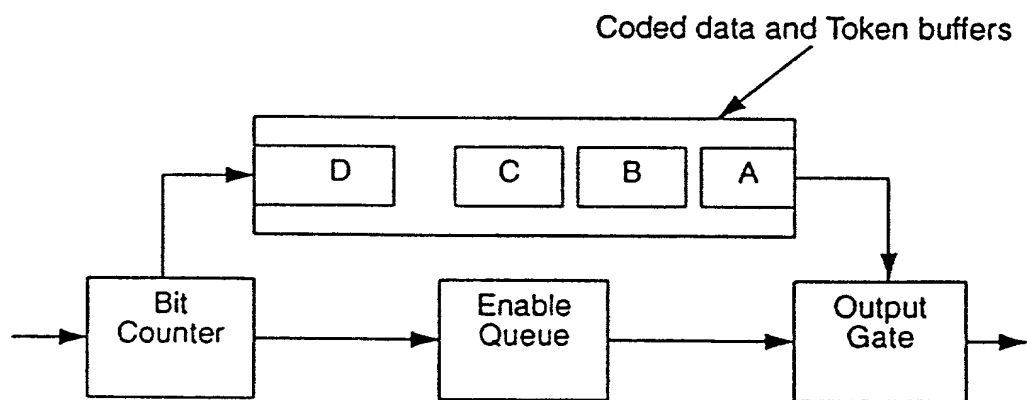


FIG.69

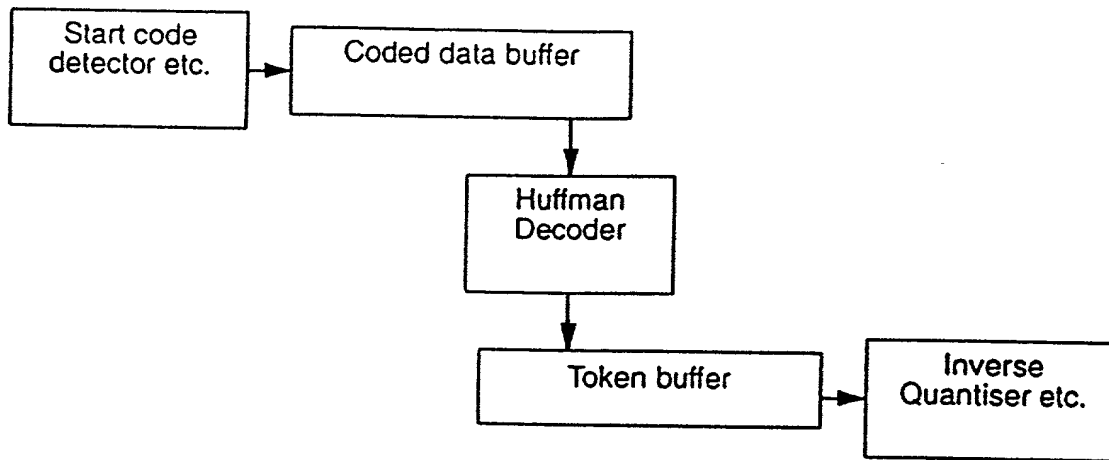


FIG.70

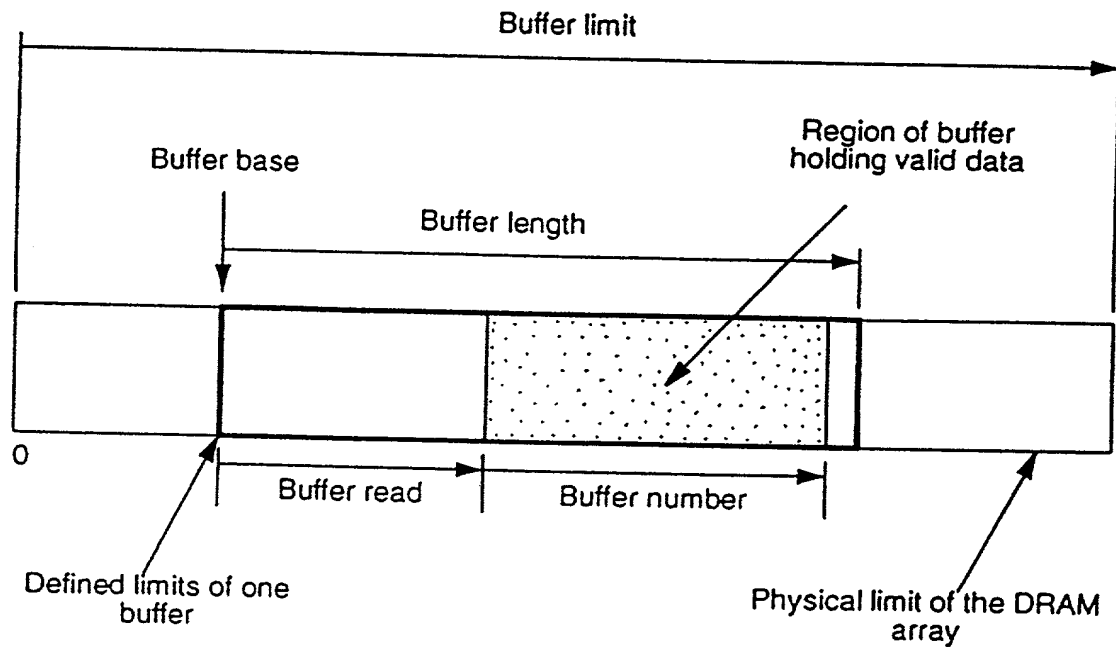


FIG.71

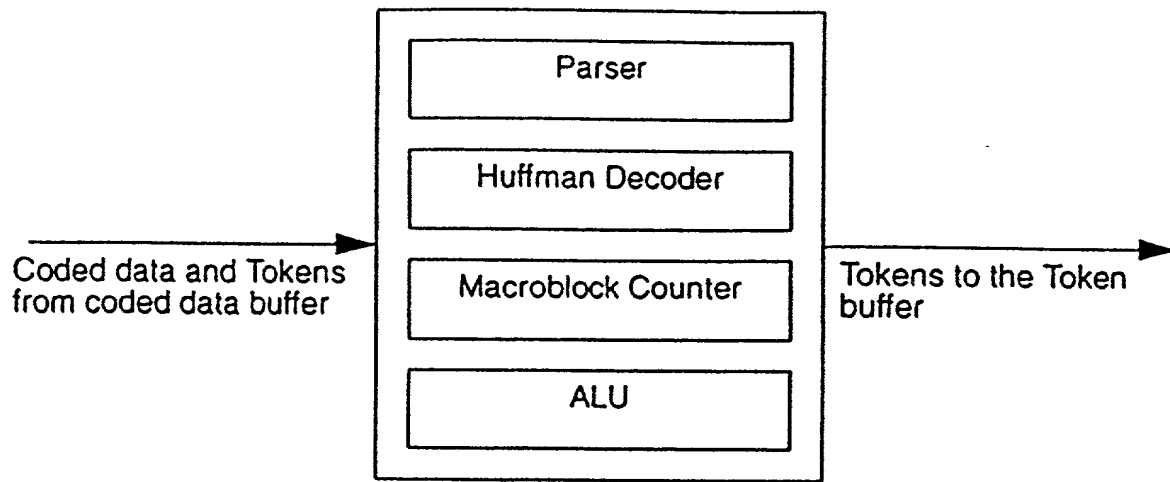


FIG.72

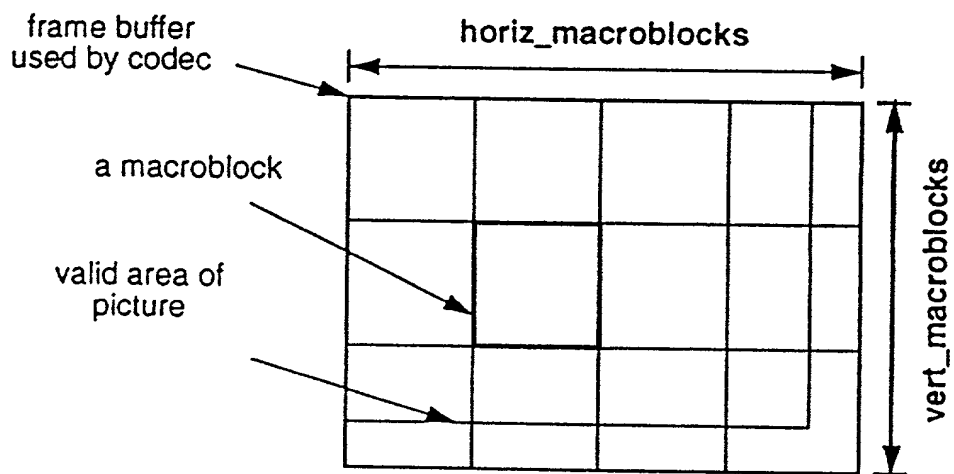


FIG.73

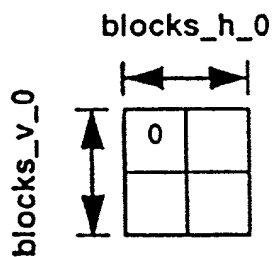


FIG.74A

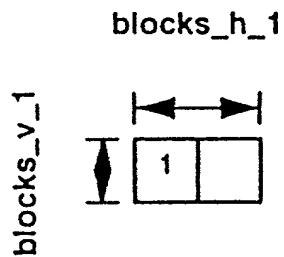


FIG.74B

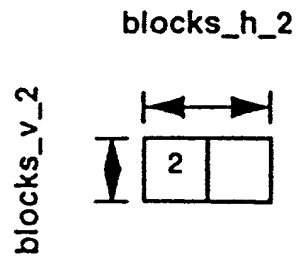


FIG.74C

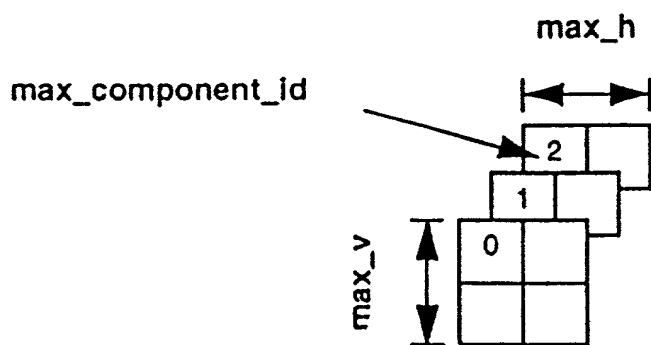


FIG.74D

$$\left\{ \begin{array}{l} \text{horiz_macroblocks} = \frac{\text{horiz_pels} + 15}{16} \\ \text{vert_macroblocks} = \frac{\text{vert_pels} + 15}{16} \end{array} \right.$$

FIG.75

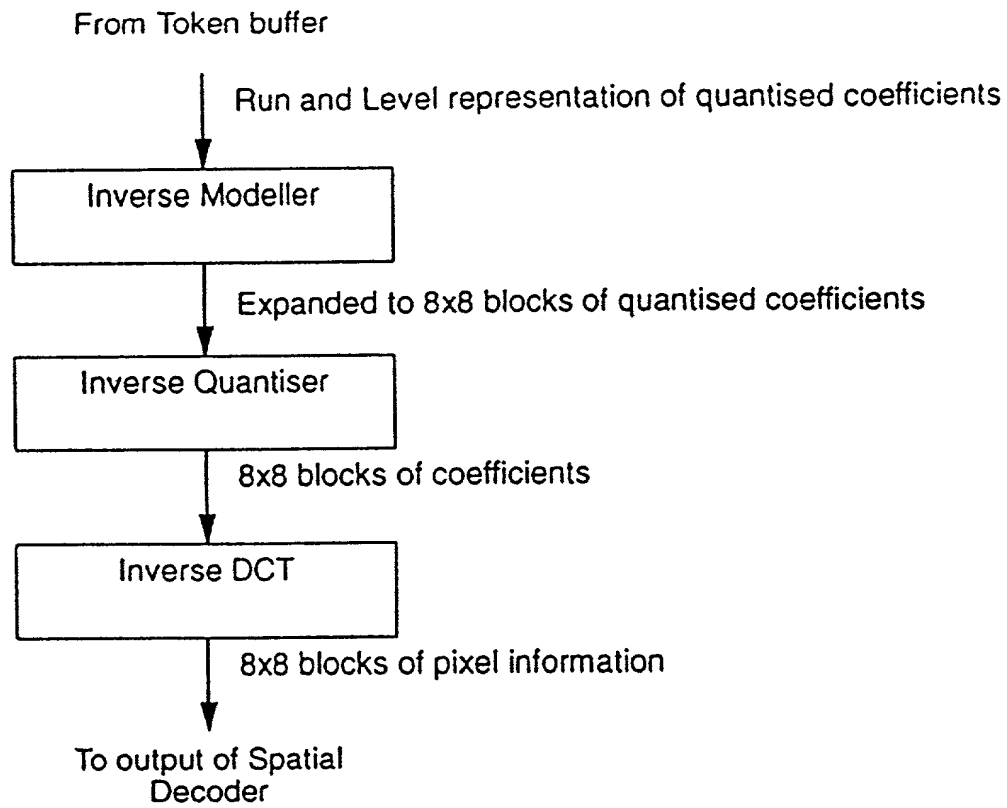


FIG.76

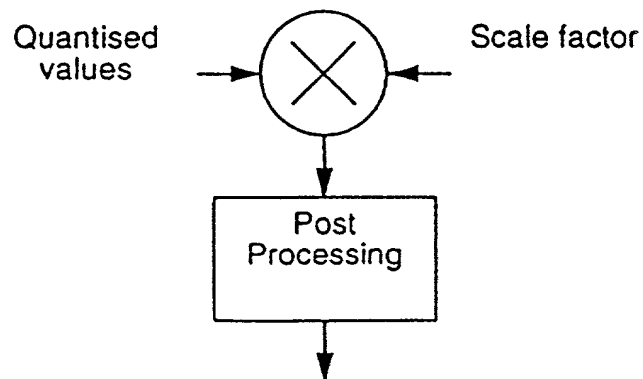


FIG.77

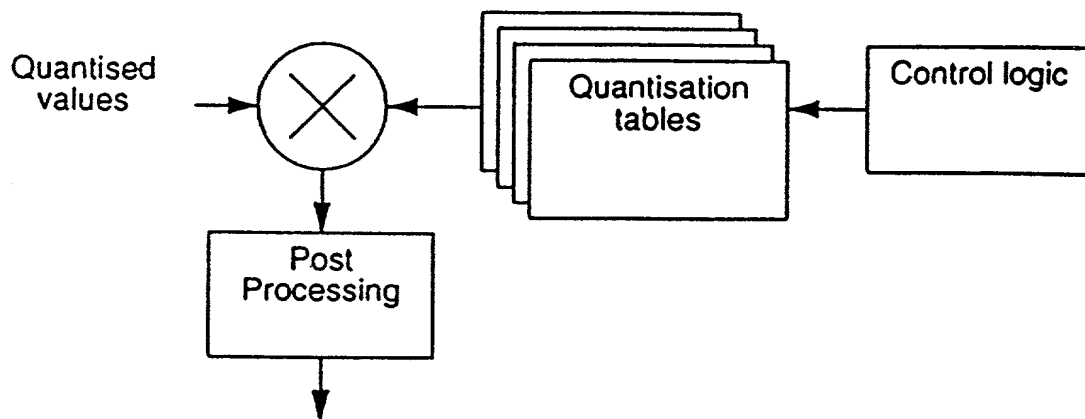


FIG.78

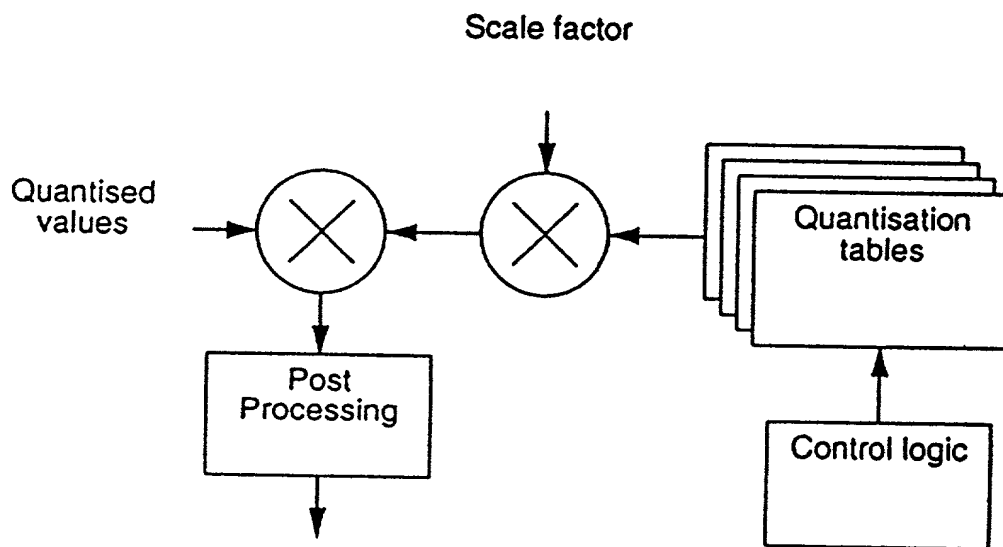


FIG.79

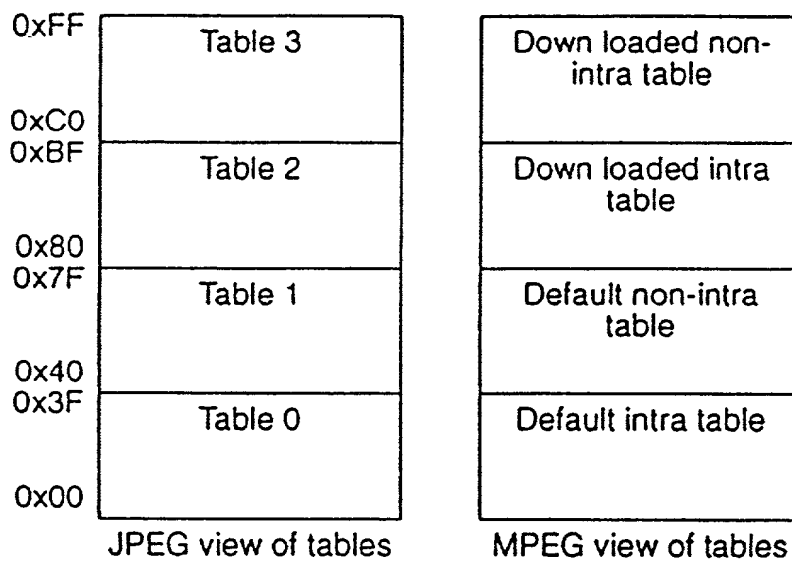


FIG.80

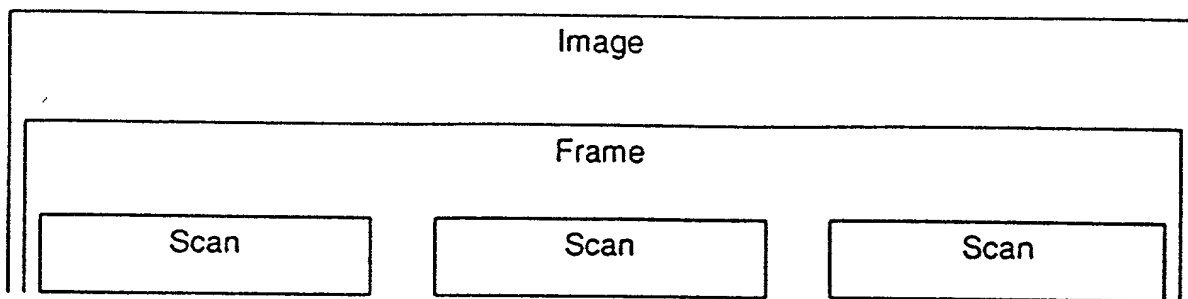


FIG.81

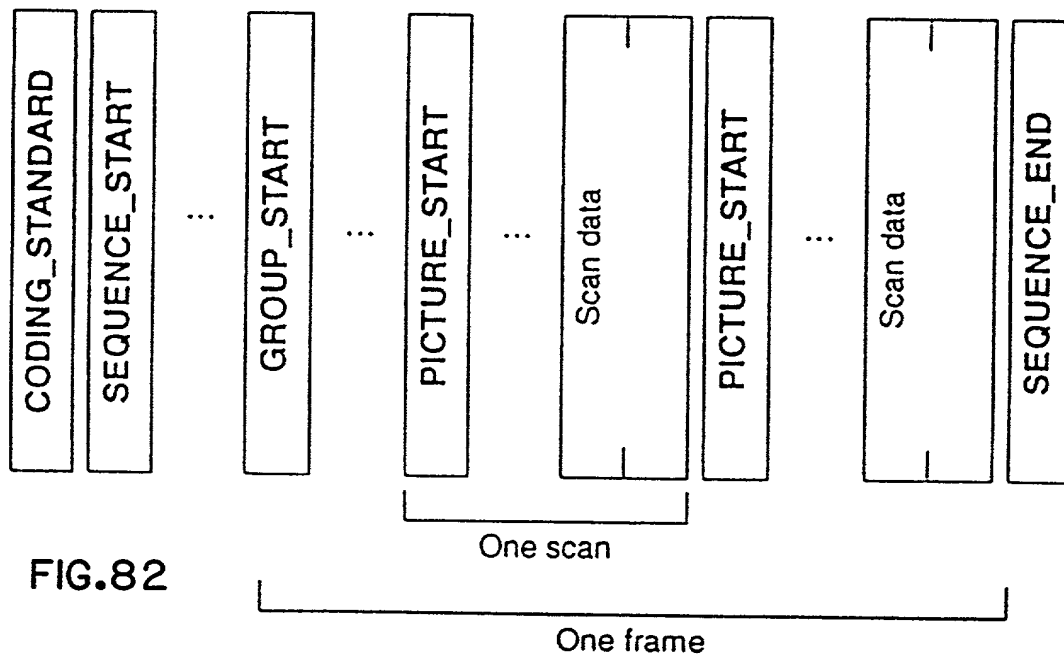
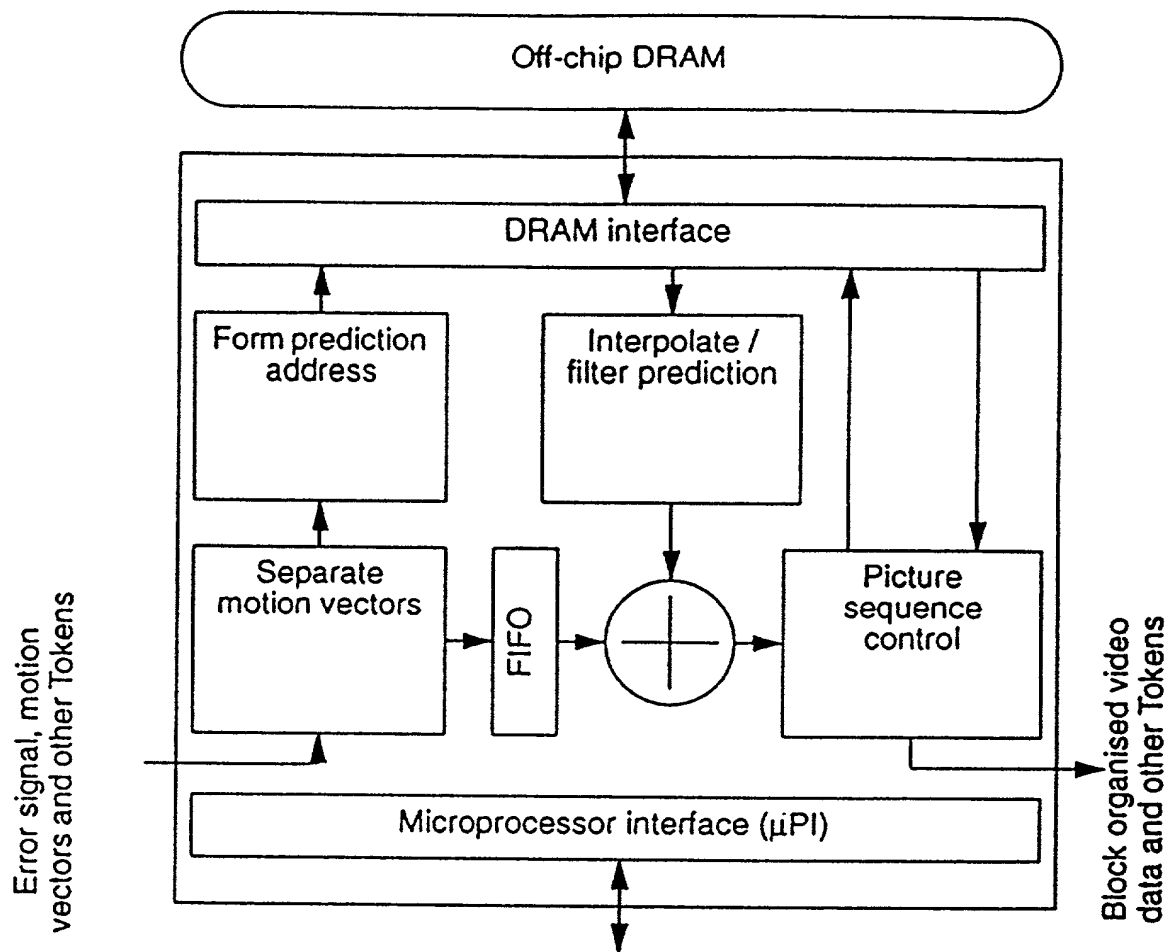


FIG.82



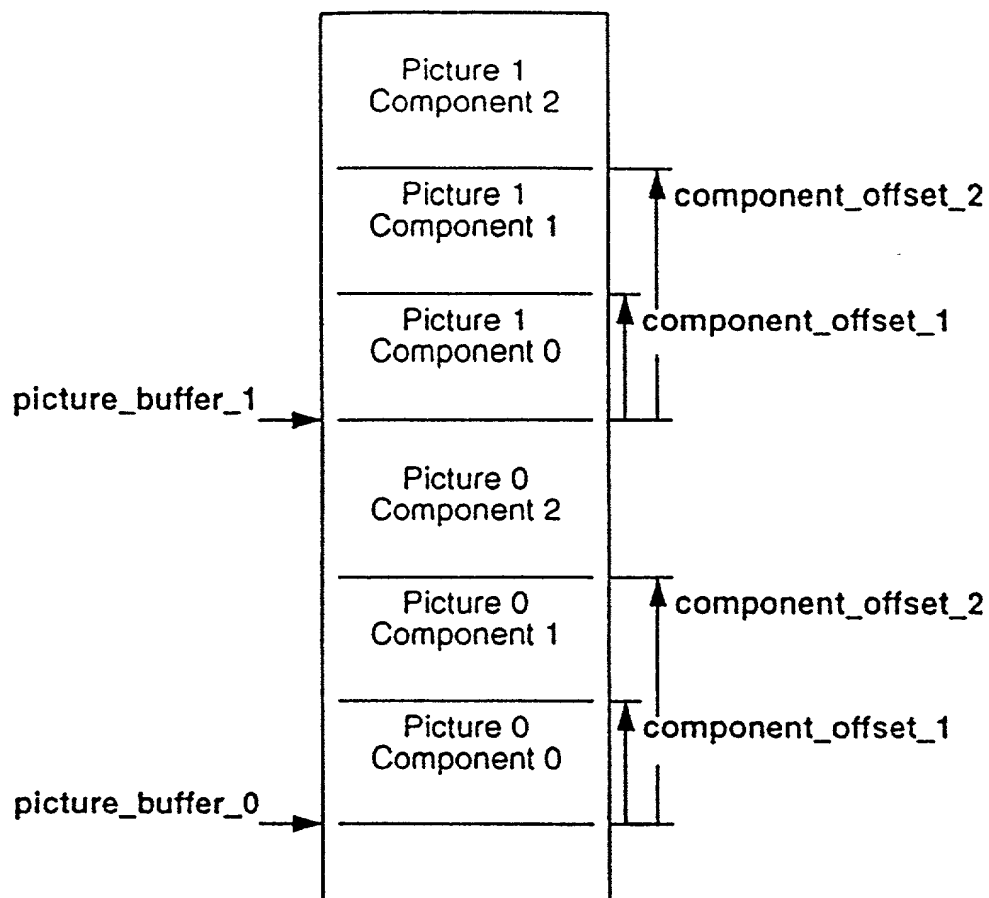


FIG.84

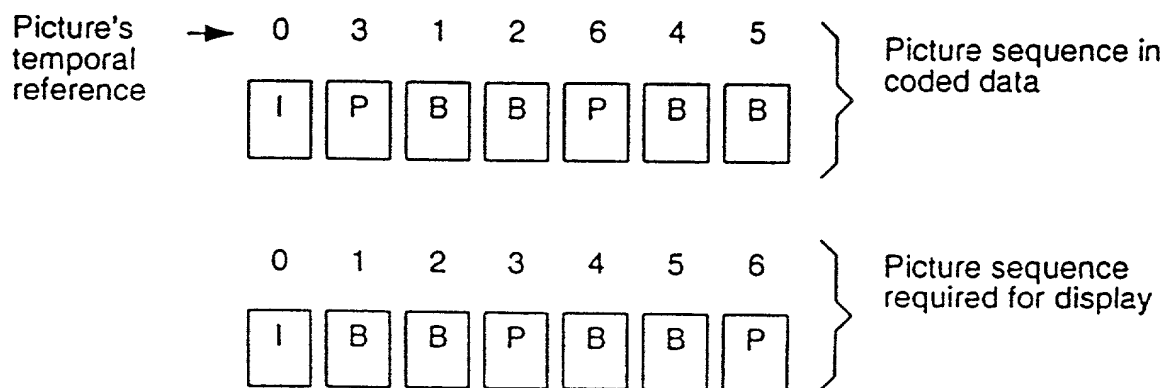


FIG.85

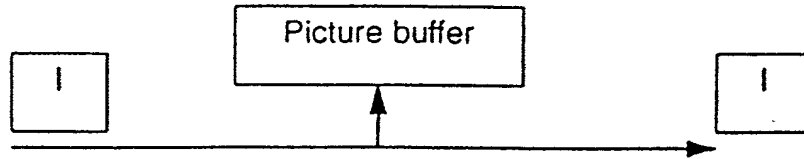


FIG.86

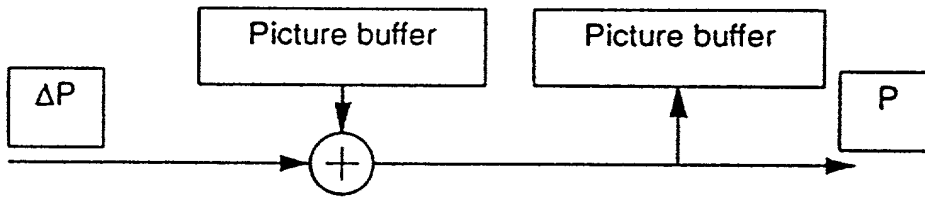


FIG.87

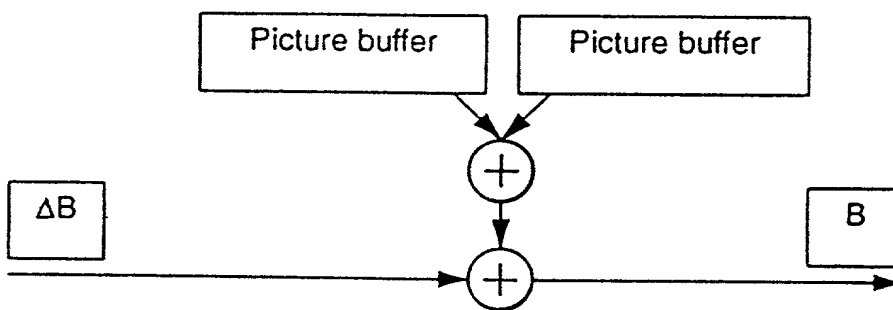


FIG.88

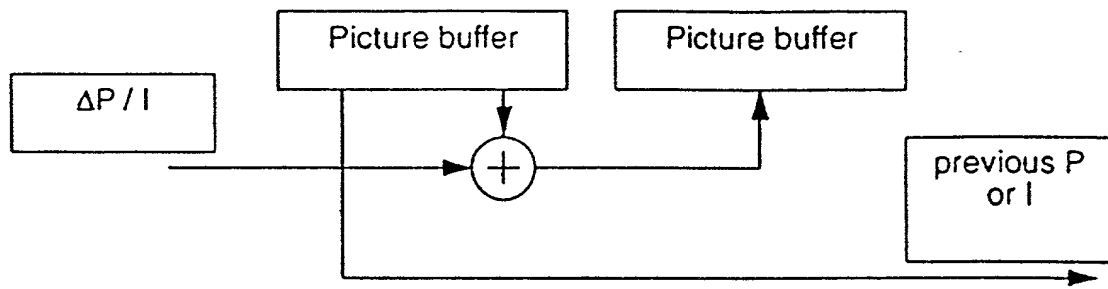


FIG.89

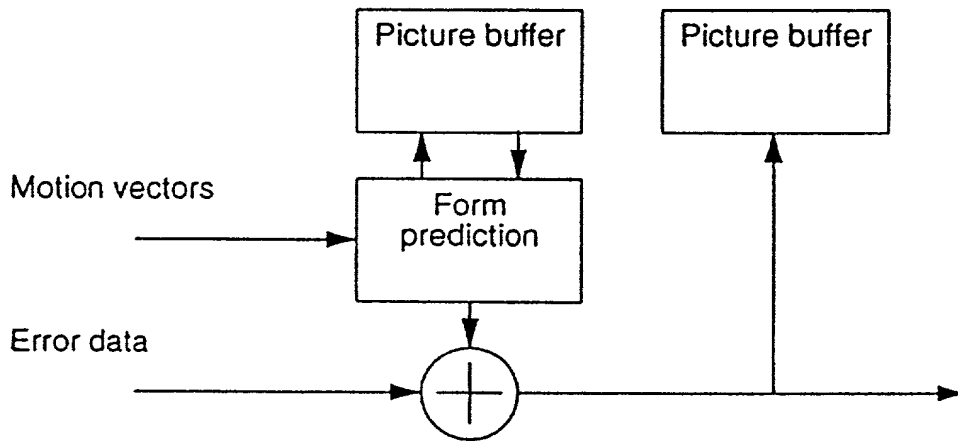


FIG.90

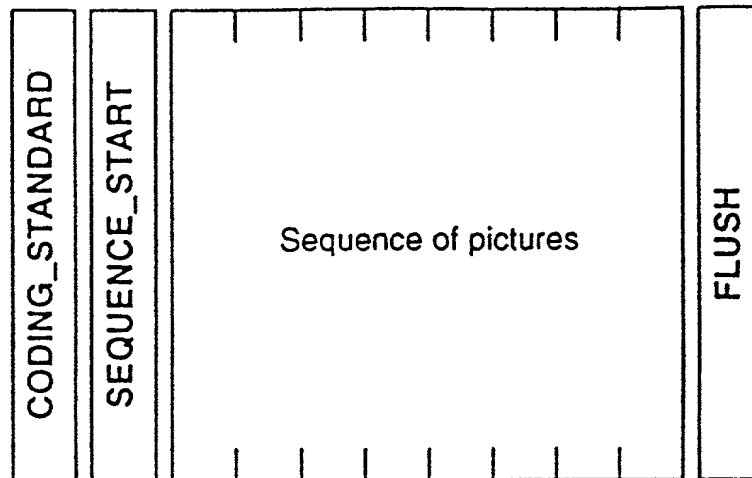


FIG.91

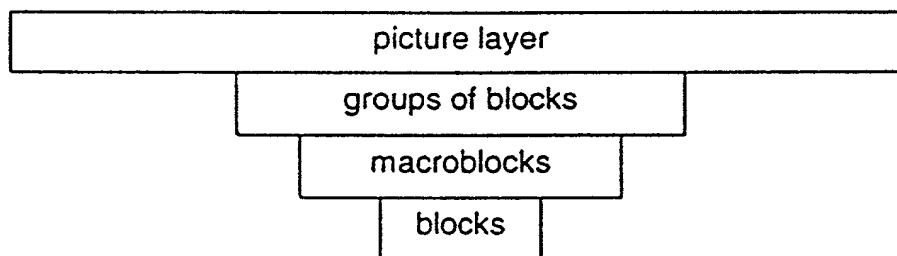


FIG.92

FIG. 93 is a block diagram of a picture structure. The diagram shows a sequence of blocks: PICTURE_START, TEMPORAL_REFERENCE, PICTURE_TYPE, followed by an ellipsis, then a large block labeled "Picture formed of groups of blocks", and finally PICTURE_END.

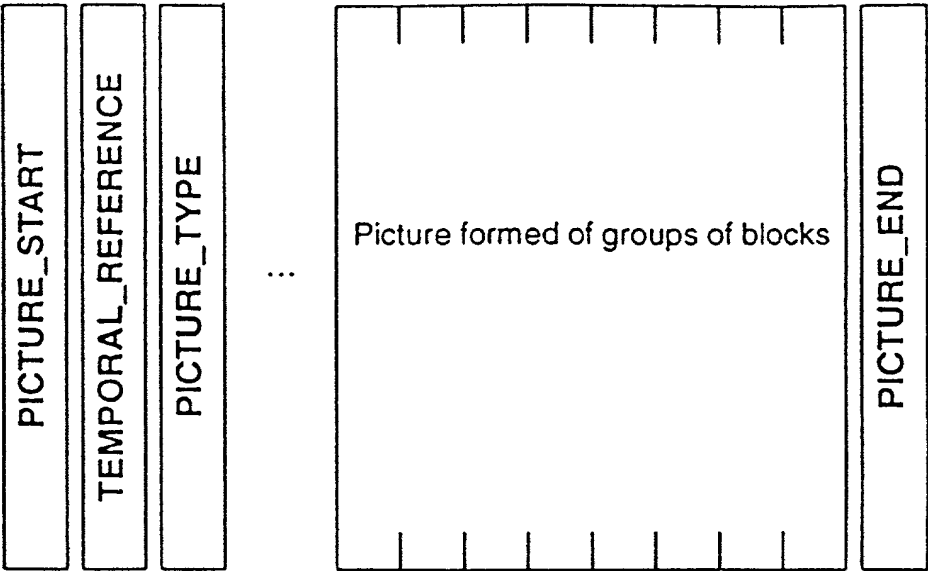


FIG.93

CIF		QCIF	
0	1	0	
2	3	2	
4	5	4	
6	7		
8	9		
10	11		

FIG.94

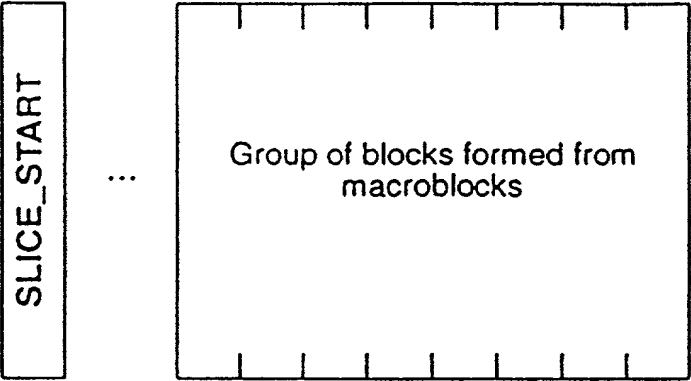


FIG.95

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33

FIG.96

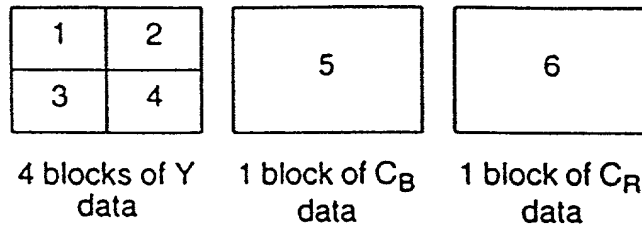


FIG.97

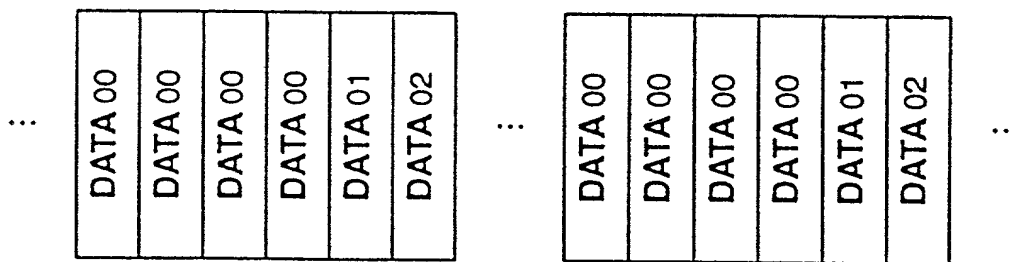


FIG.98

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

⋮

59	58	59	60	61	62	63	64
----	----	----	----	----	----	----	----

FIG.99

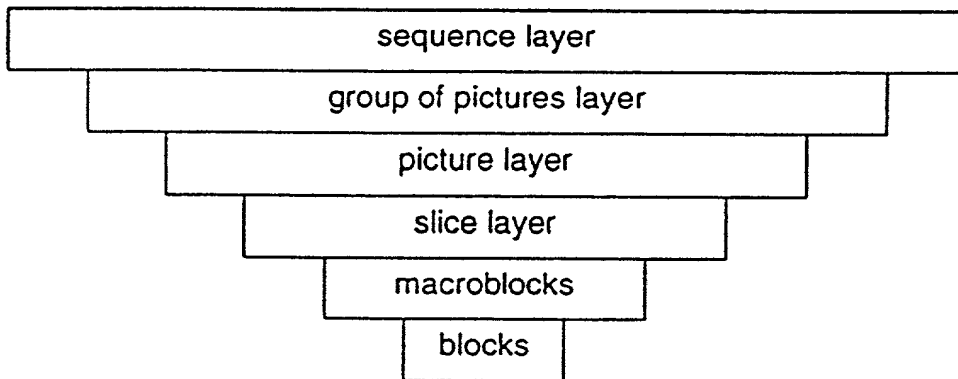


FIG. 1 00

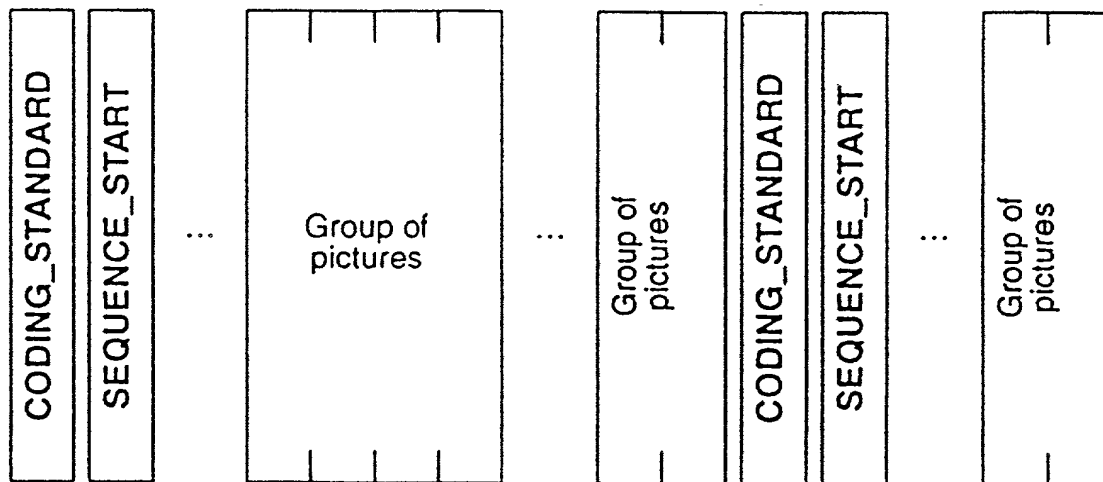


FIG. 101

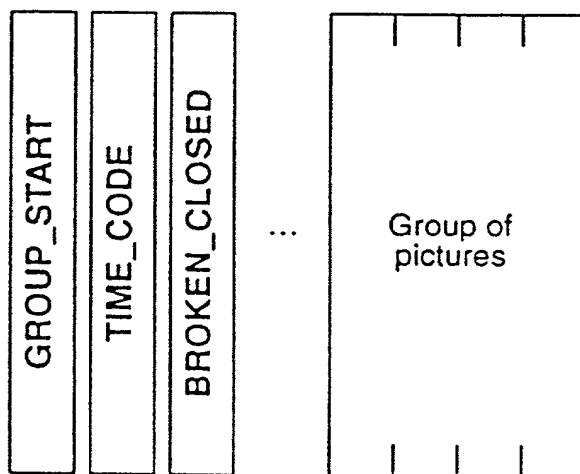


FIG. 102

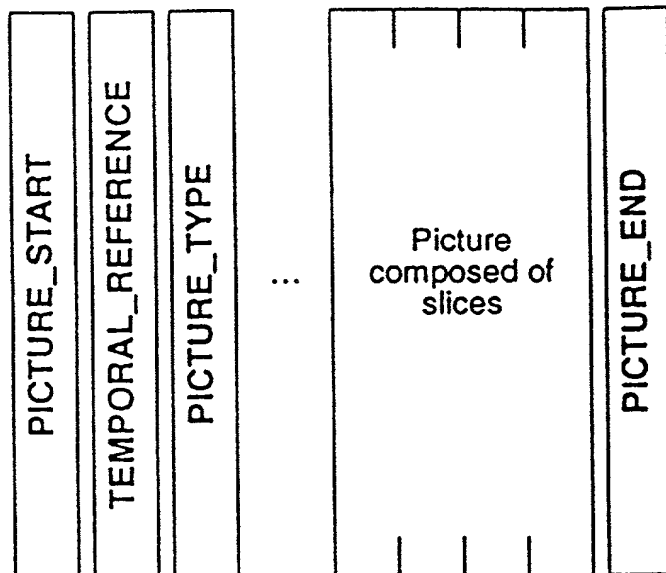


FIG. 1 03

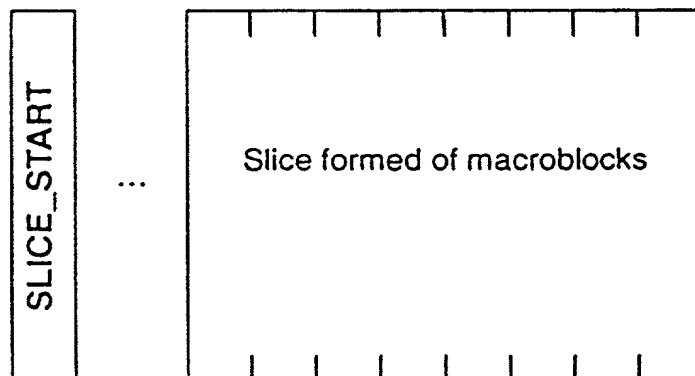


FIG. 1 04

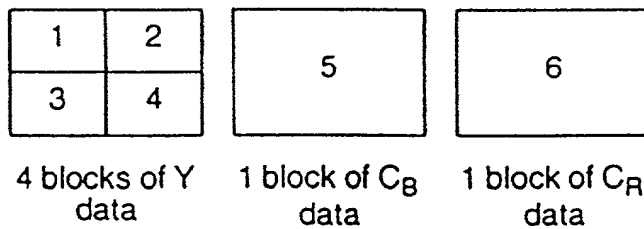


FIG. 105

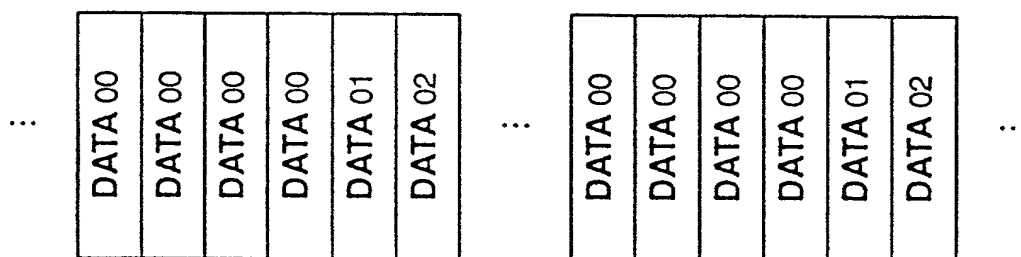


FIG. 106

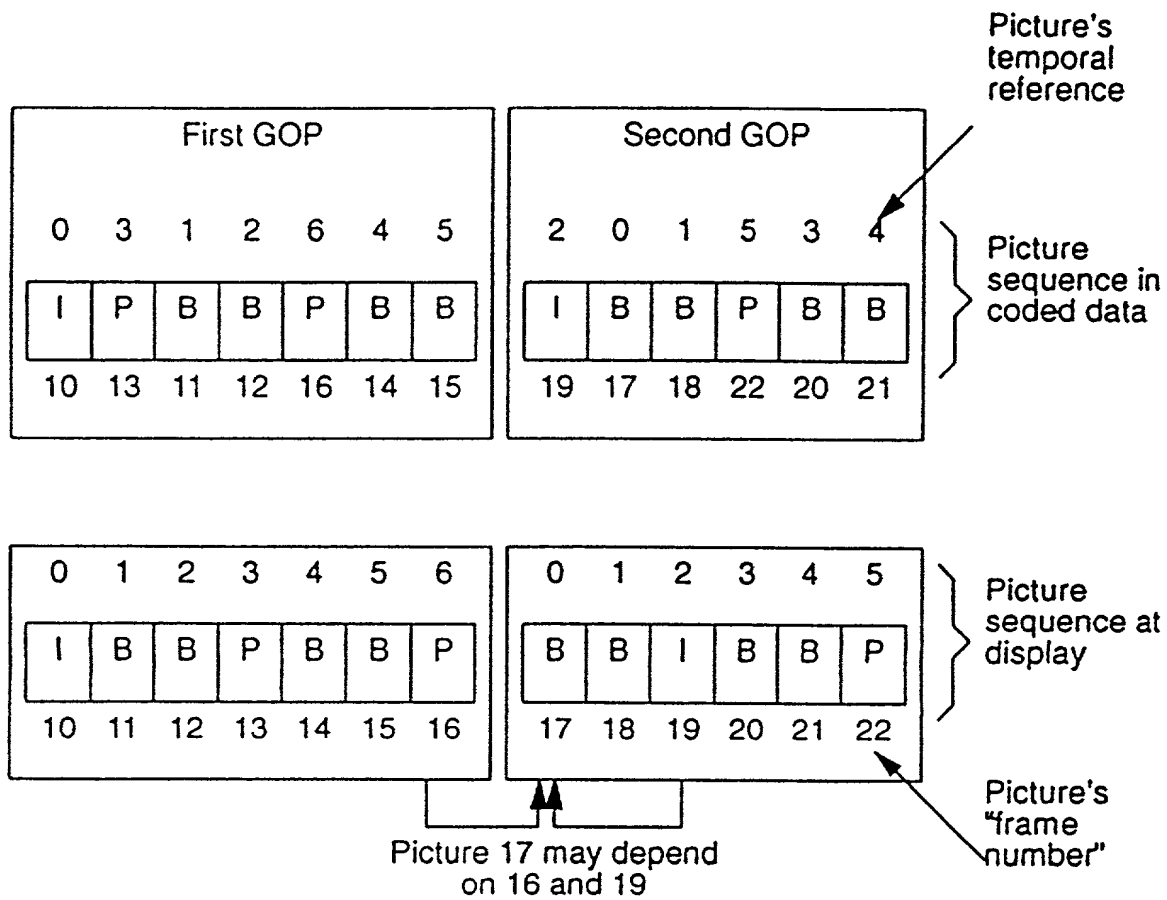


FIG. 107



Access Start
 Data Transfer
 Default State

FIG. I 08

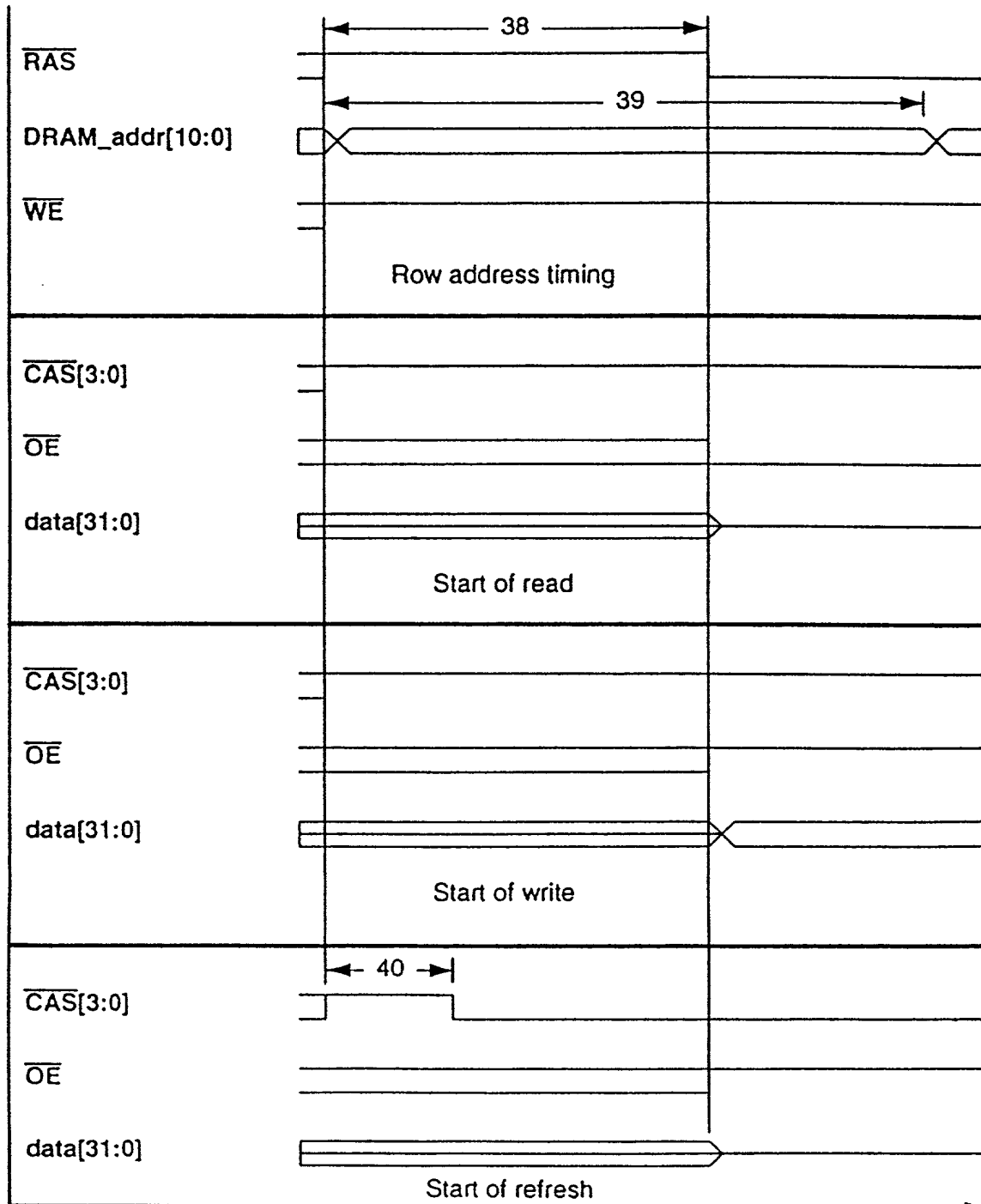


FIG. I 09

TIME →

$\overline{\text{RAS}}$

DRAM_addr[10:0]

$\overline{\text{CAS}}[3:0]$

$\overline{\text{WE}}$

$\overline{\text{OE}}$

DRAM_data[31:0]

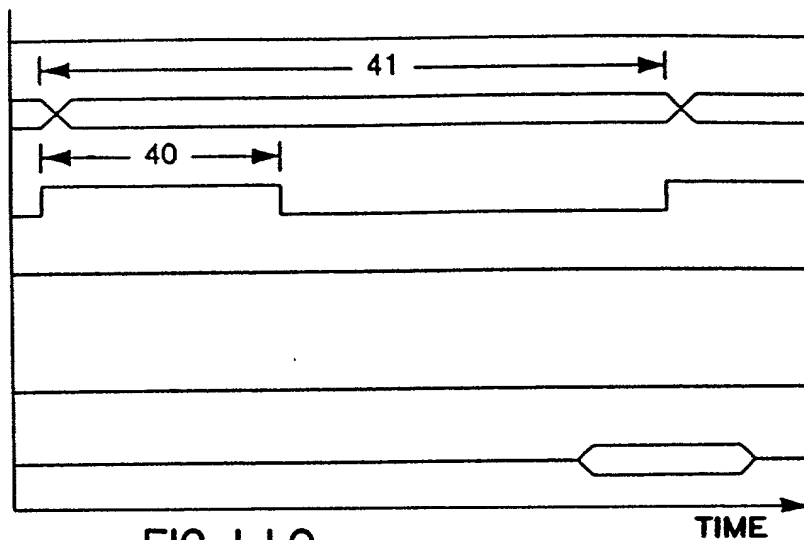


FIG. 110

$\overline{\text{RAS}}$

DRAM_addr[10:0]

$\overline{\text{CAS}}[3:0]$

$\overline{\text{WE}}$

$\overline{\text{OE}}$

DRAM_data[31:0]

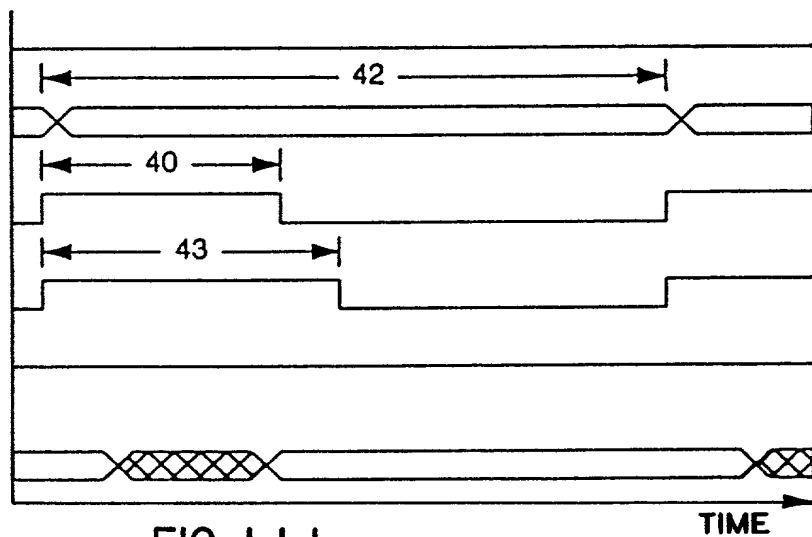


FIG. 111

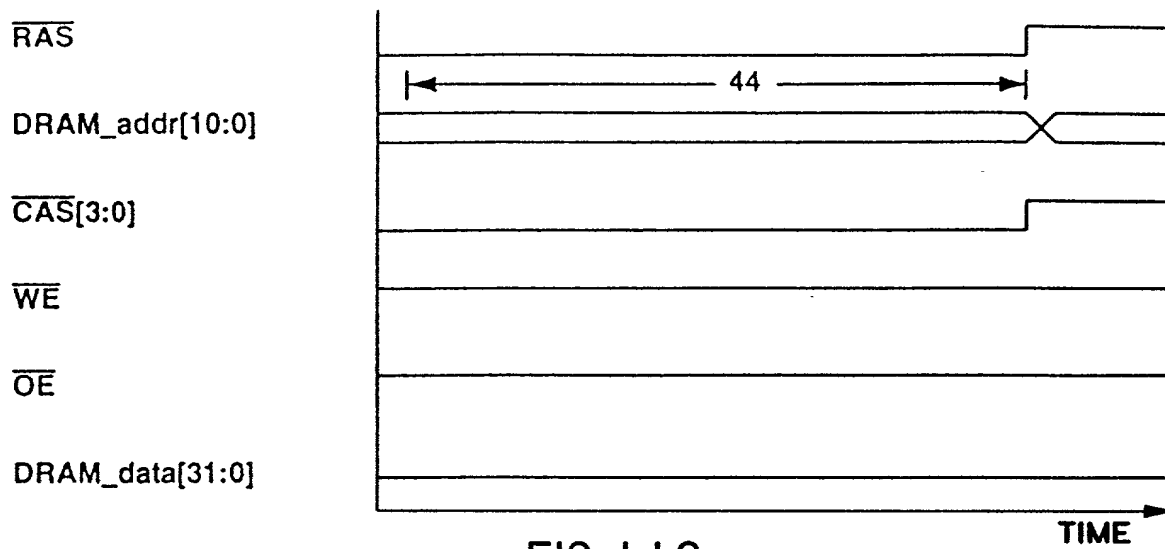


FIG. 112

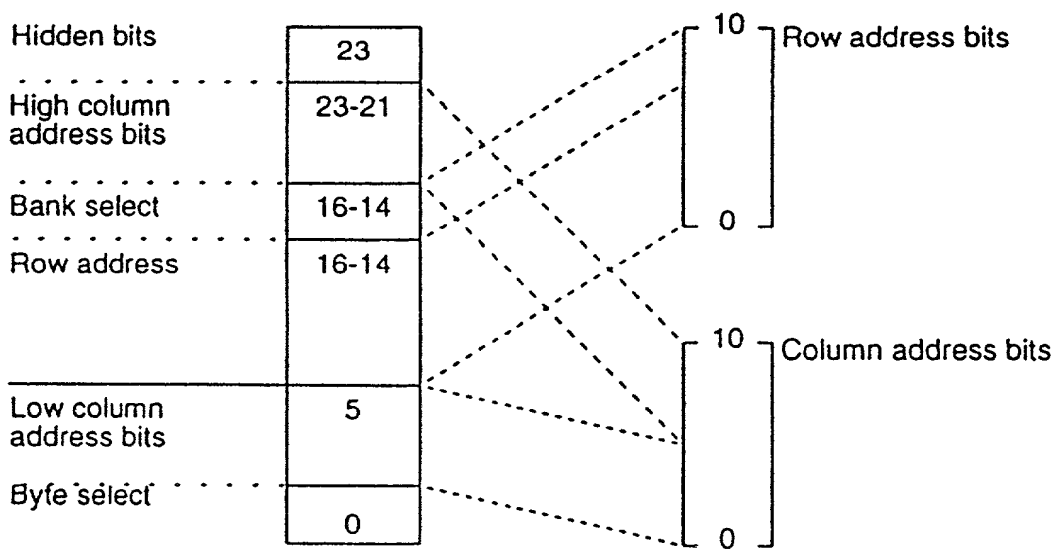


FIG. 113

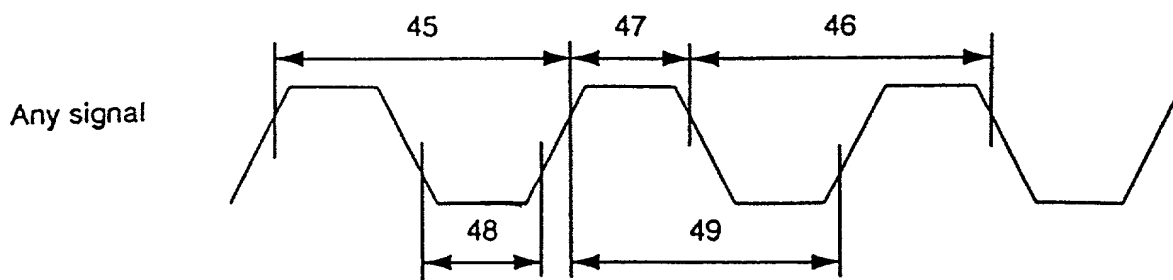


FIG. 114

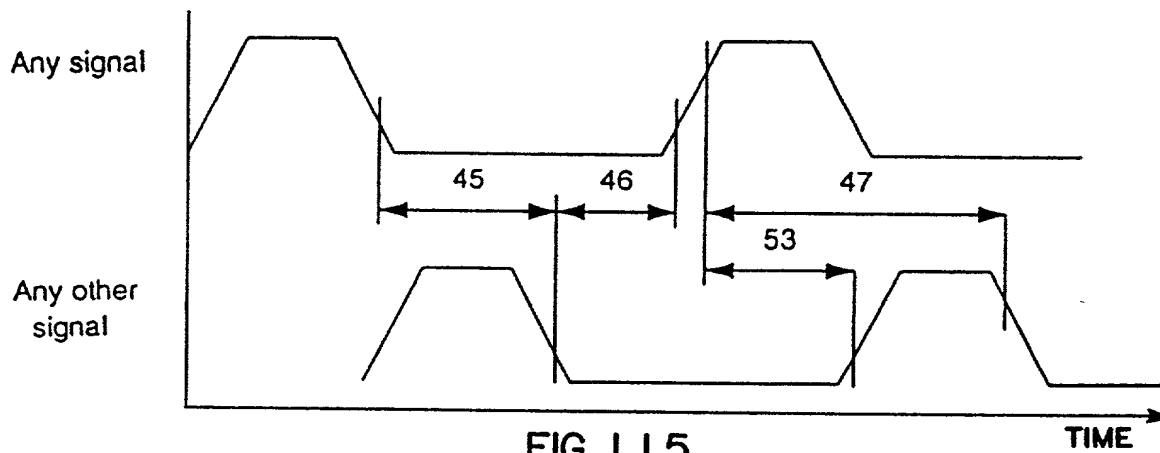


FIG. 115

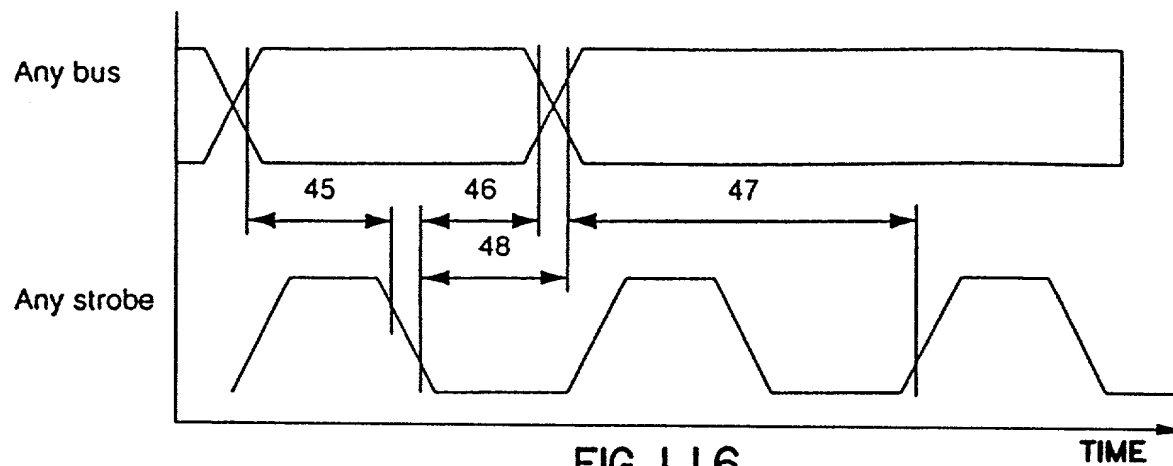


FIG. 116

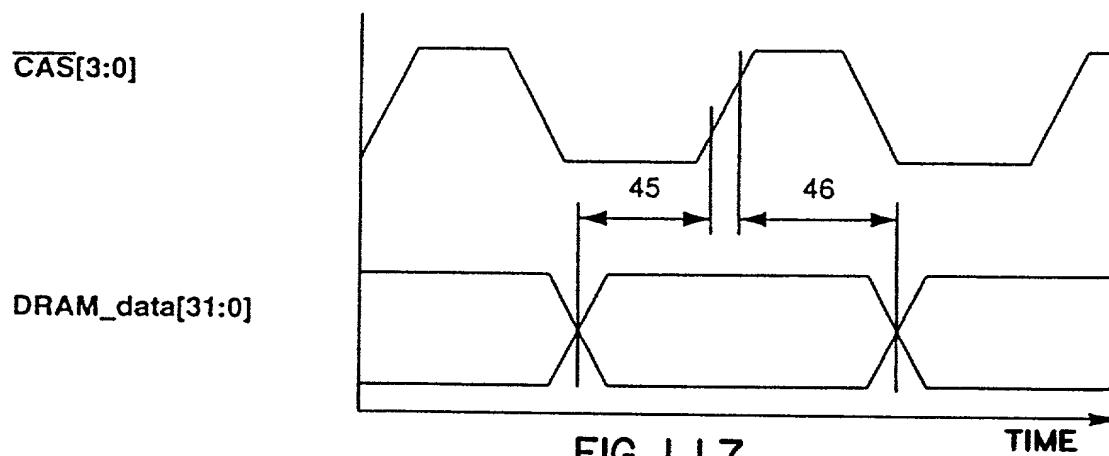


FIG. 117

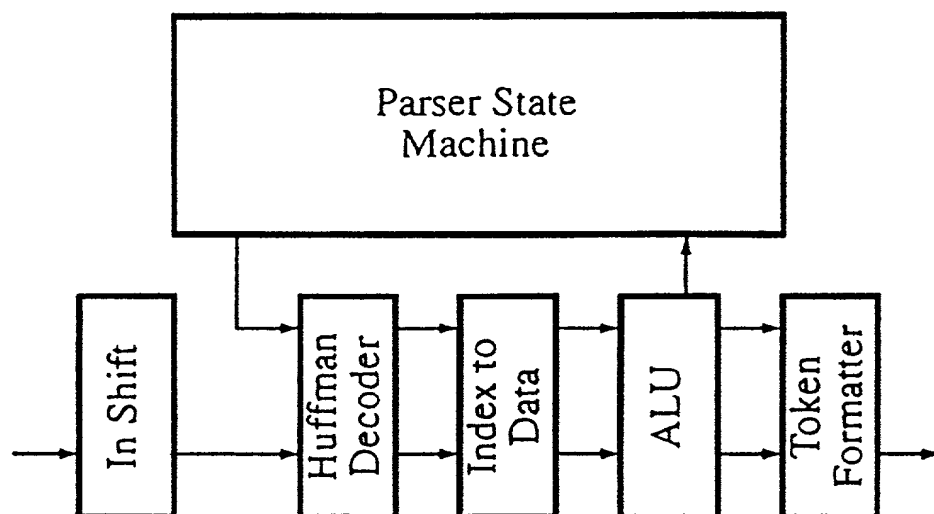


FIG. 118

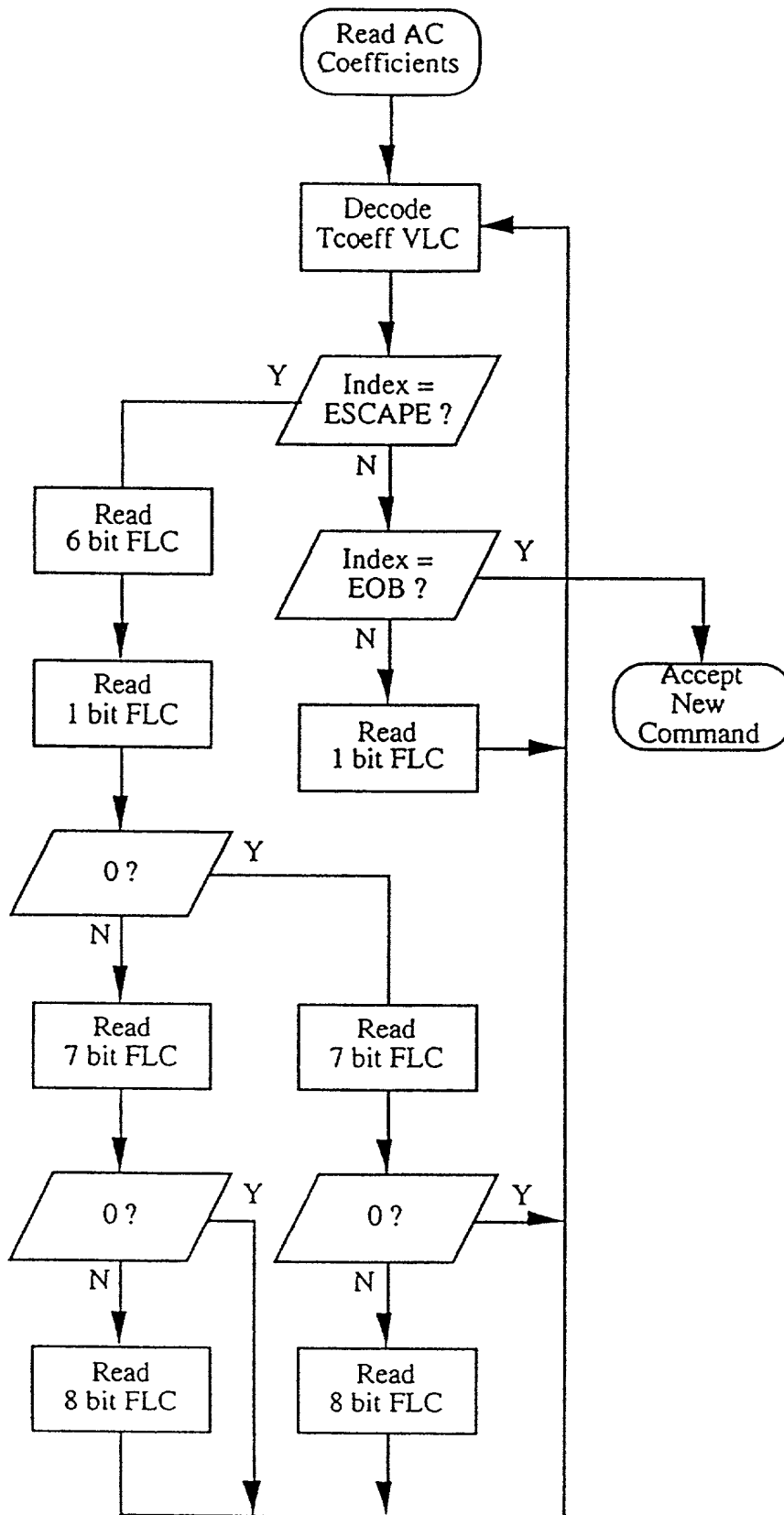


FIG. 119

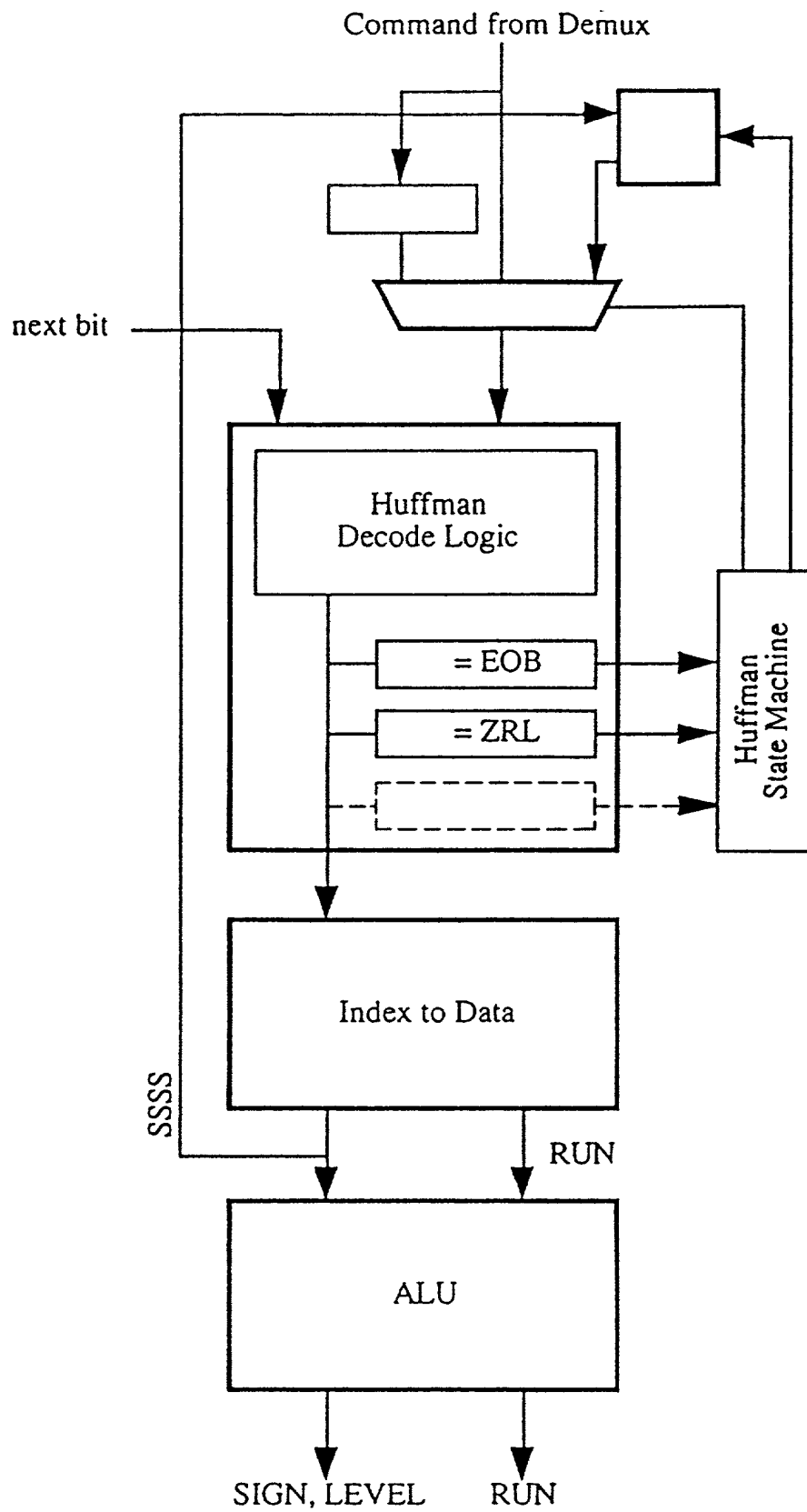


FIG. 120

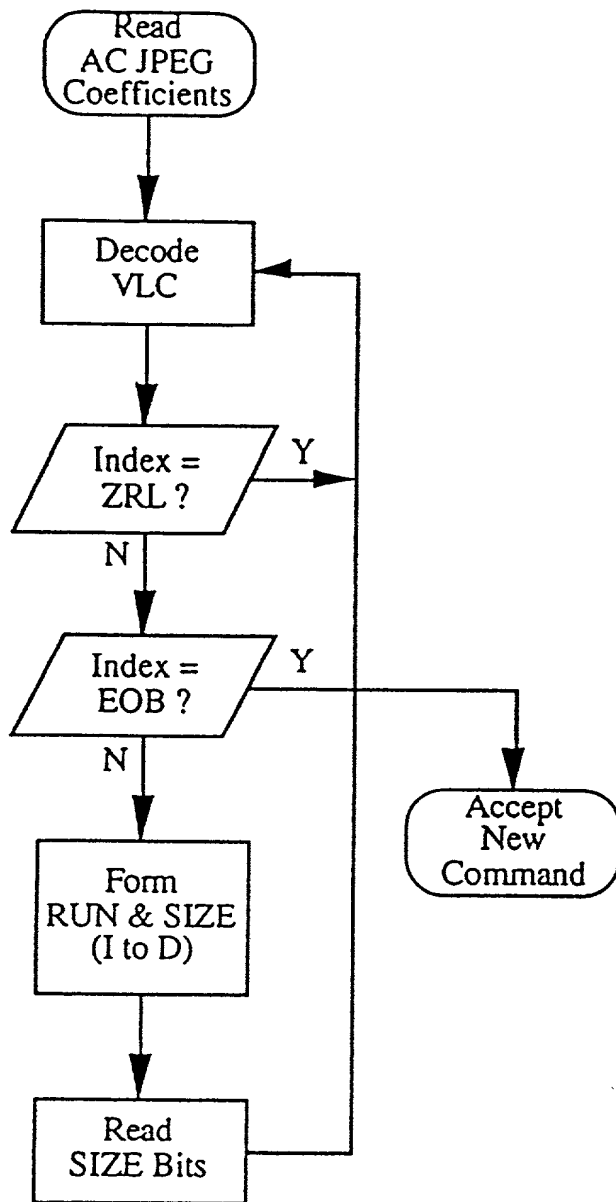


FIG. 12 | A

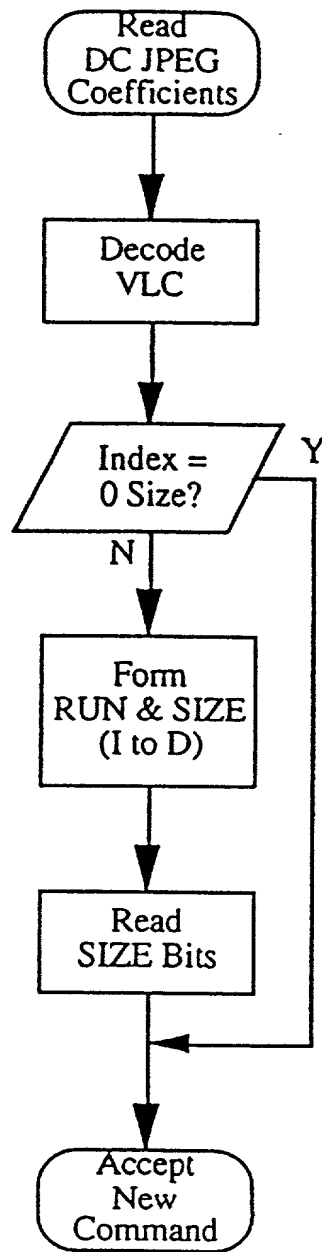


FIG. 12 | B

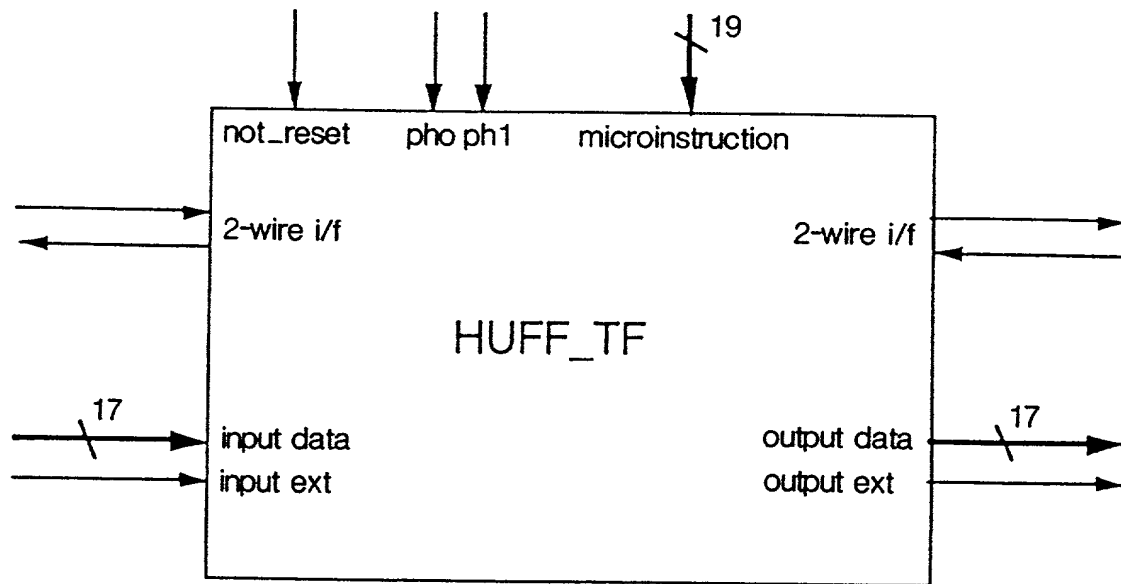


FIG. I 22

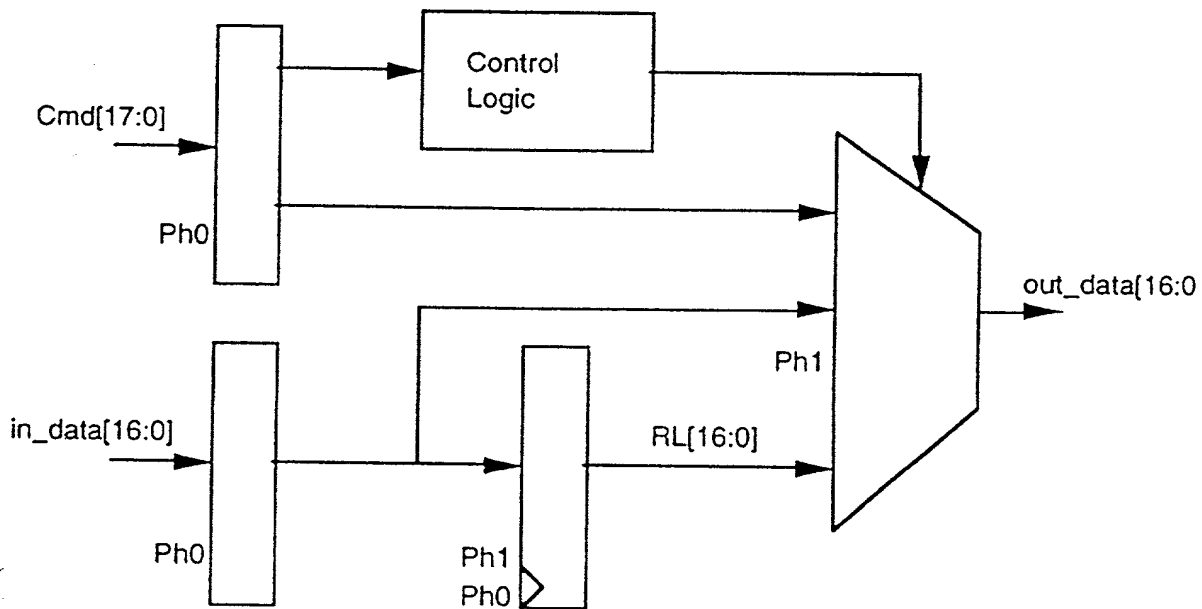


FIG. I 23

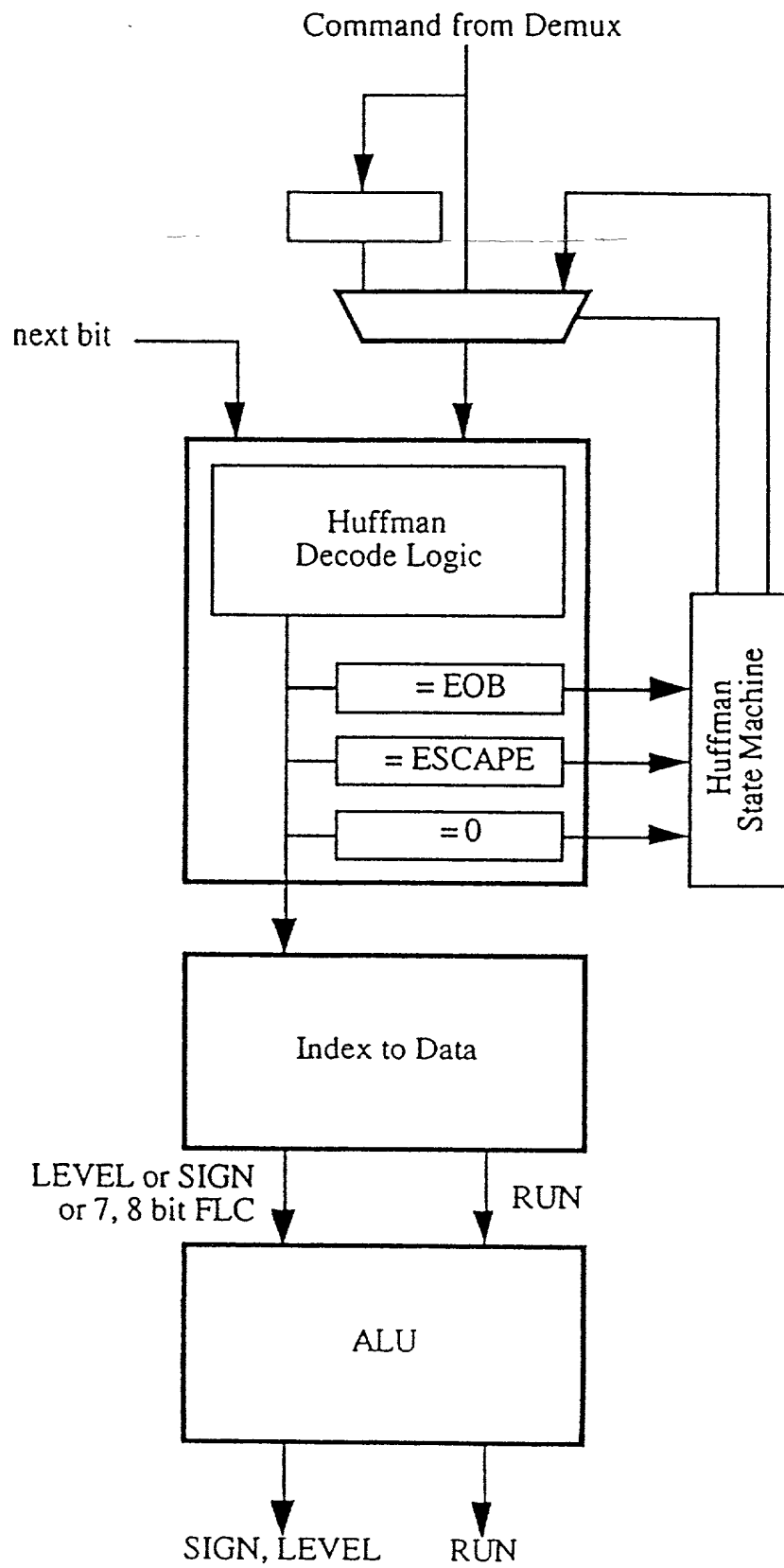


FIG. 124

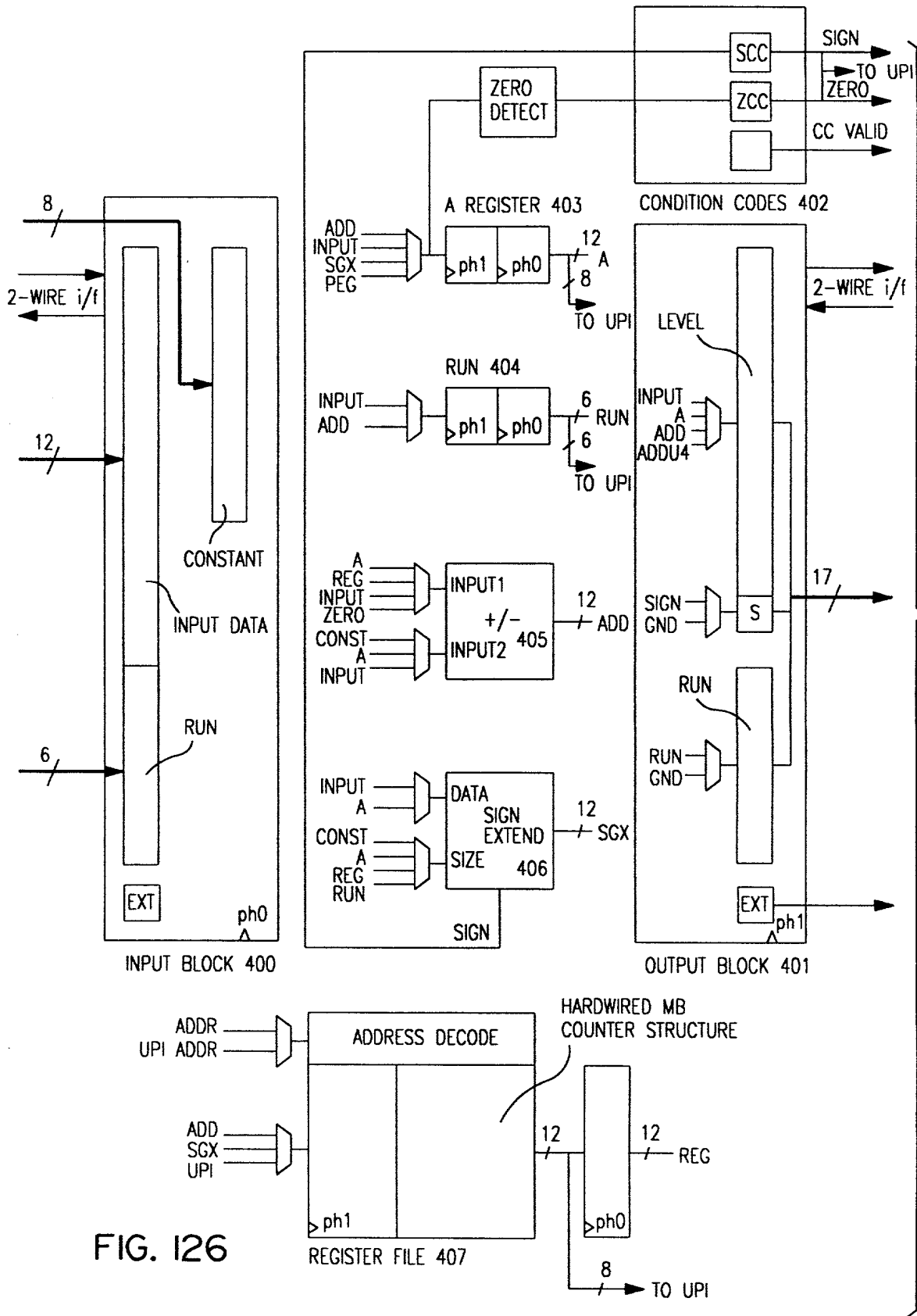


FIG. 126

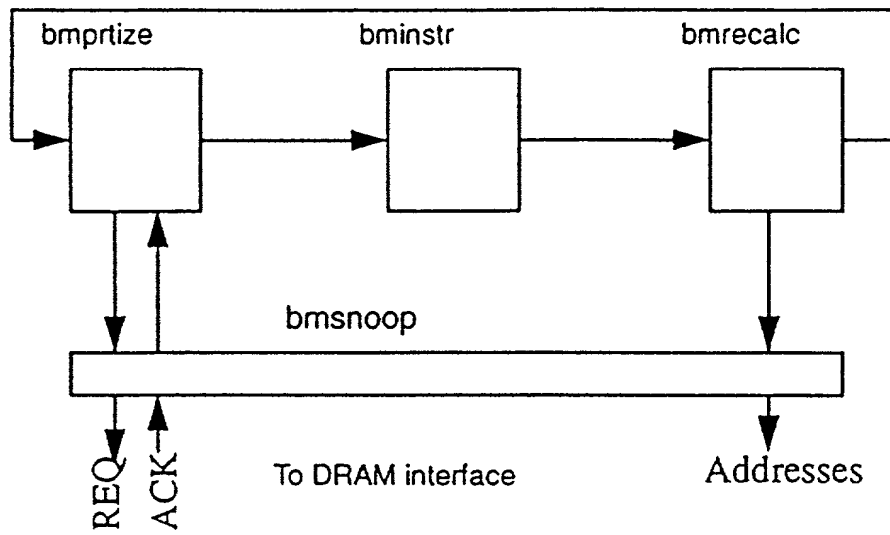


FIG. 127

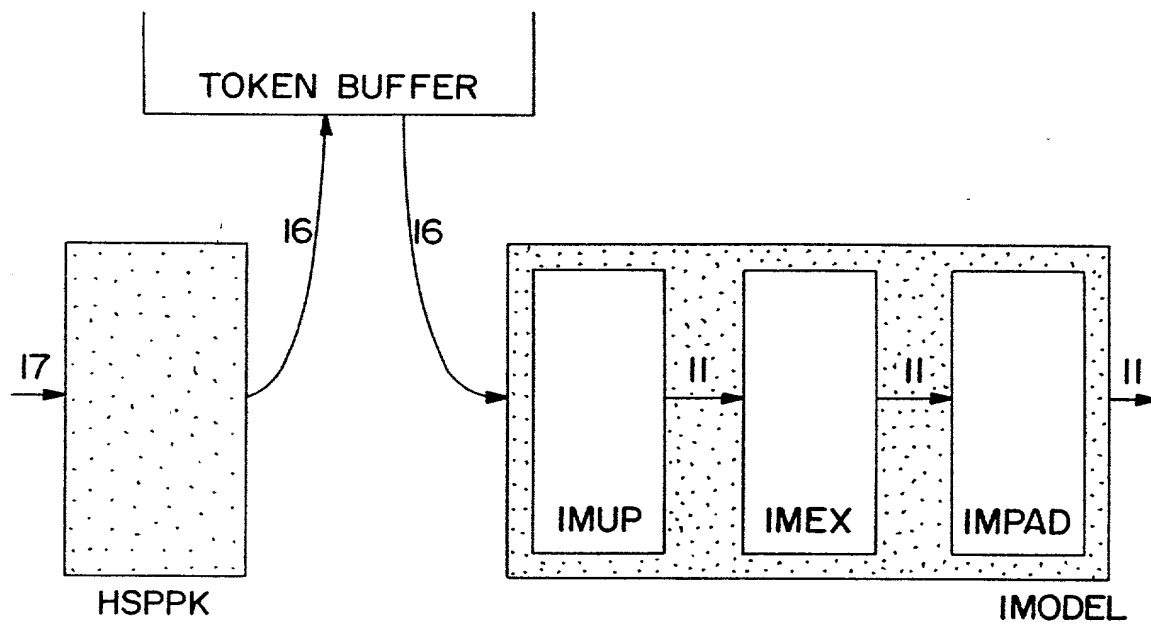


FIG. 128

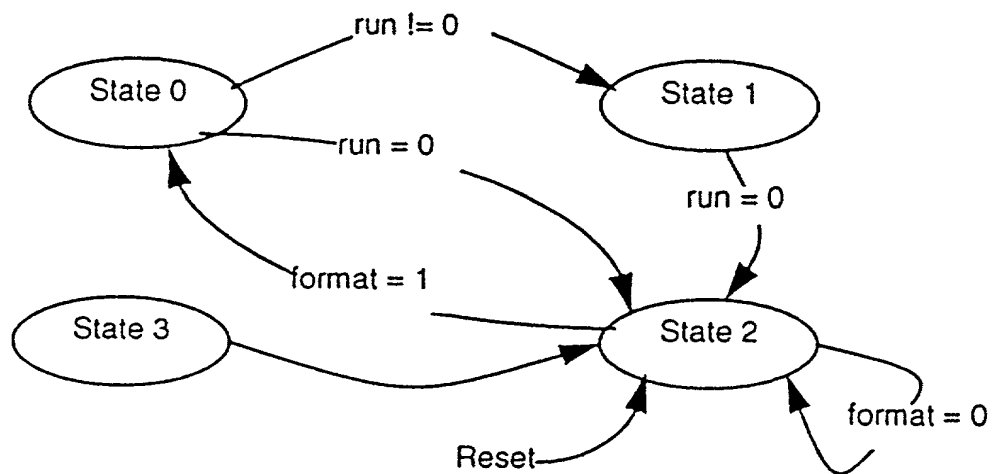


FIG. 129

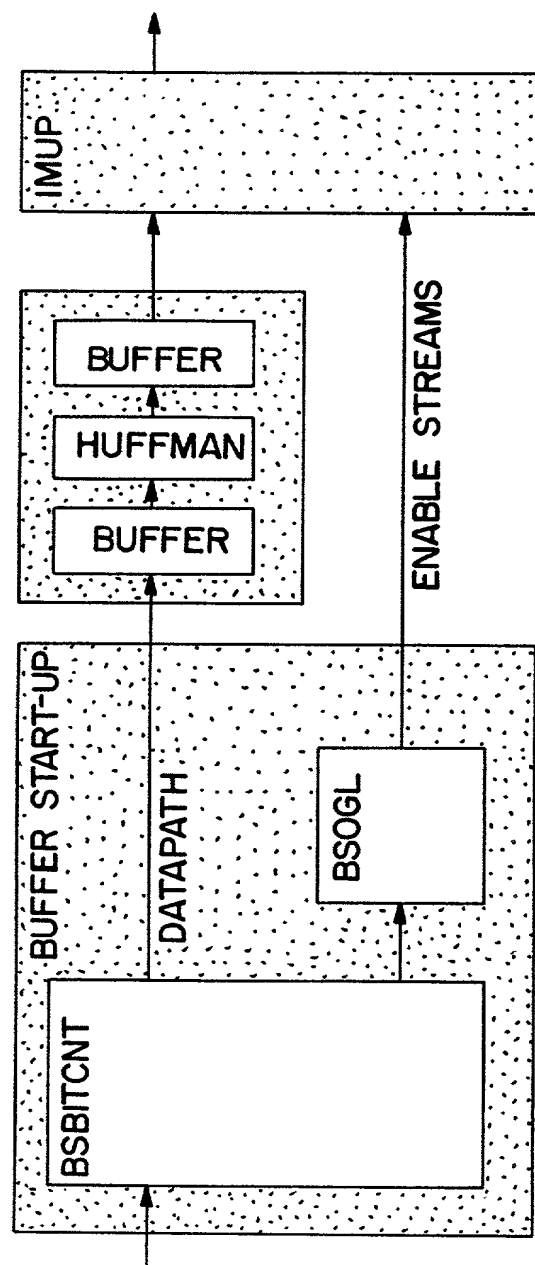


FIG. 130

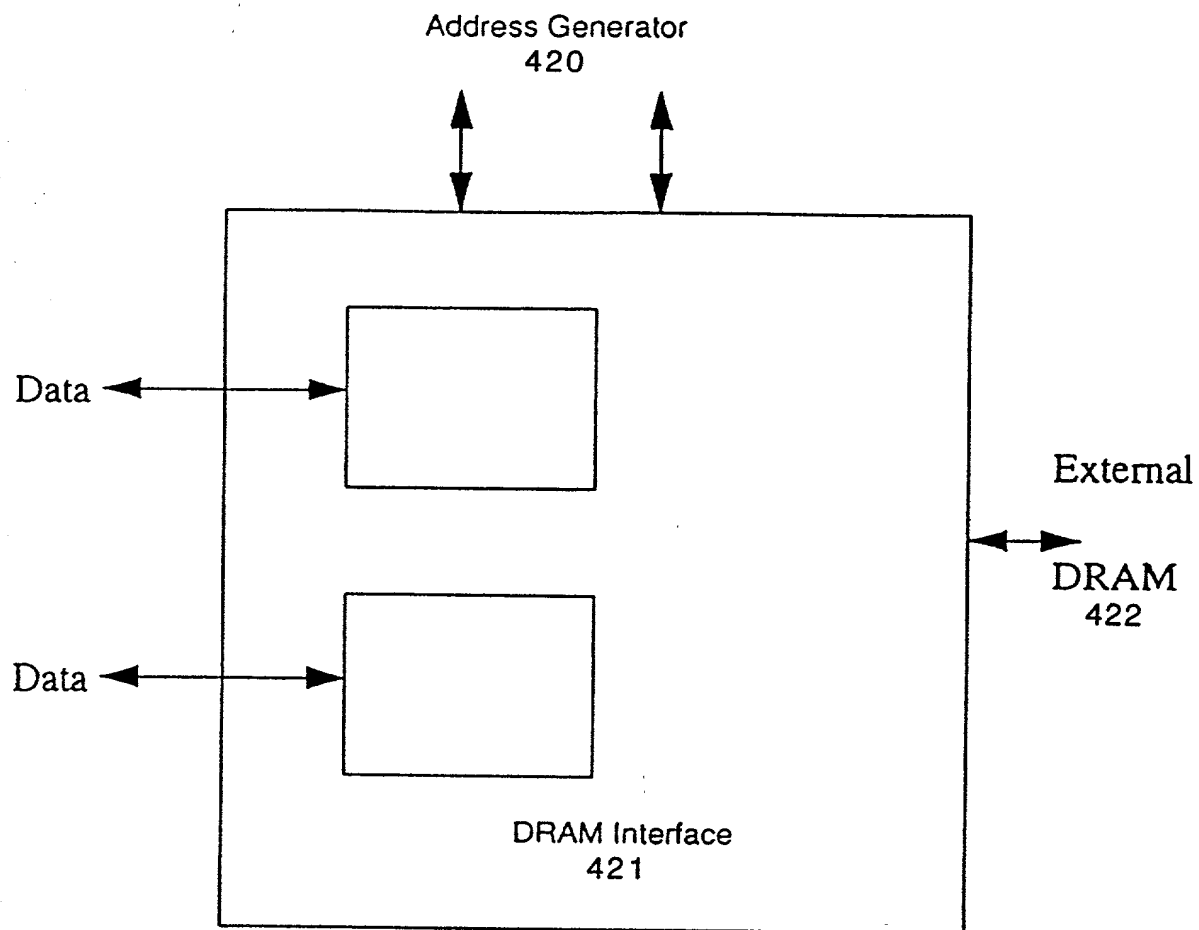


FIG. 131

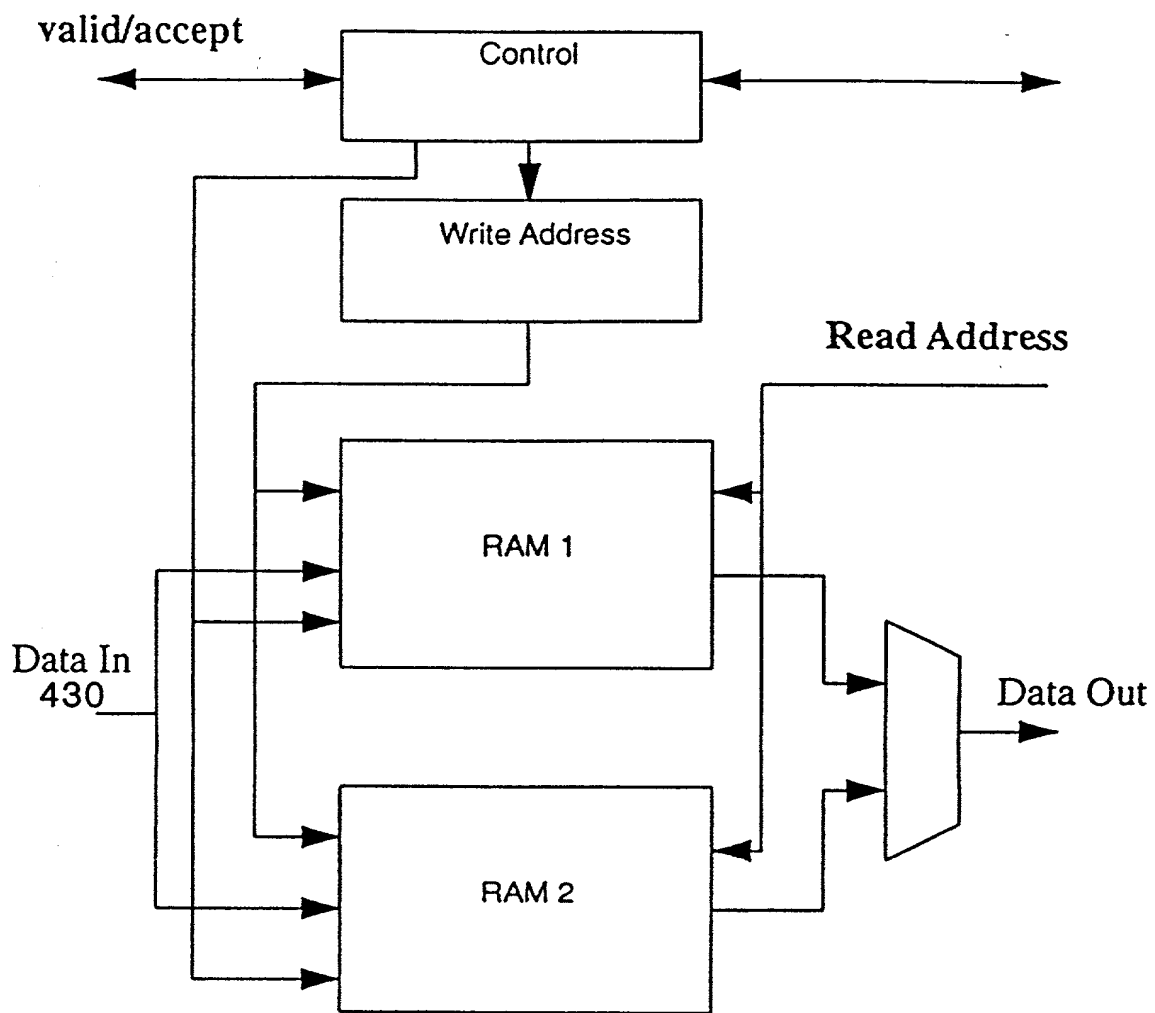


FIG. 132

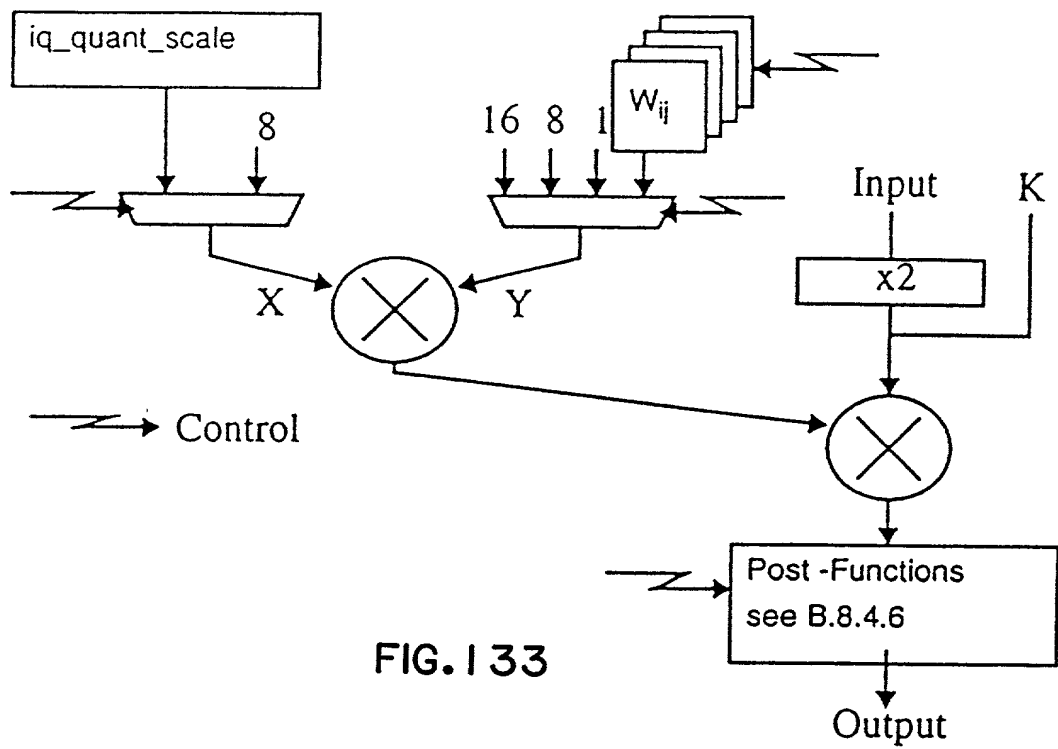


FIG. 133

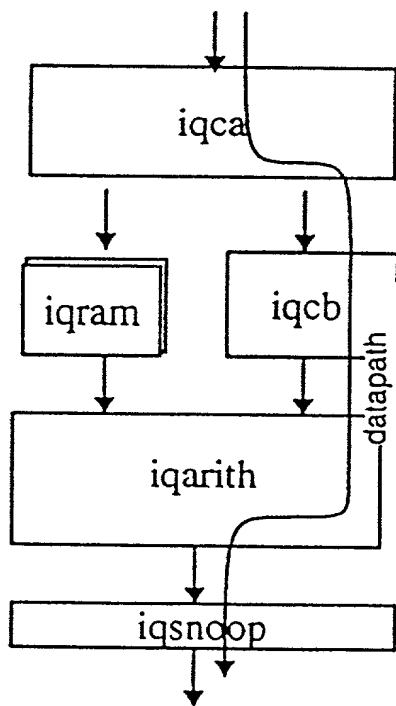


FIG. 134

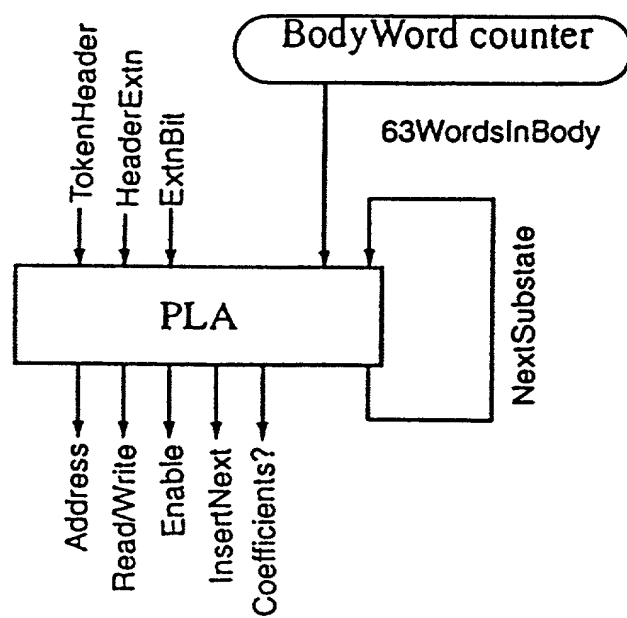
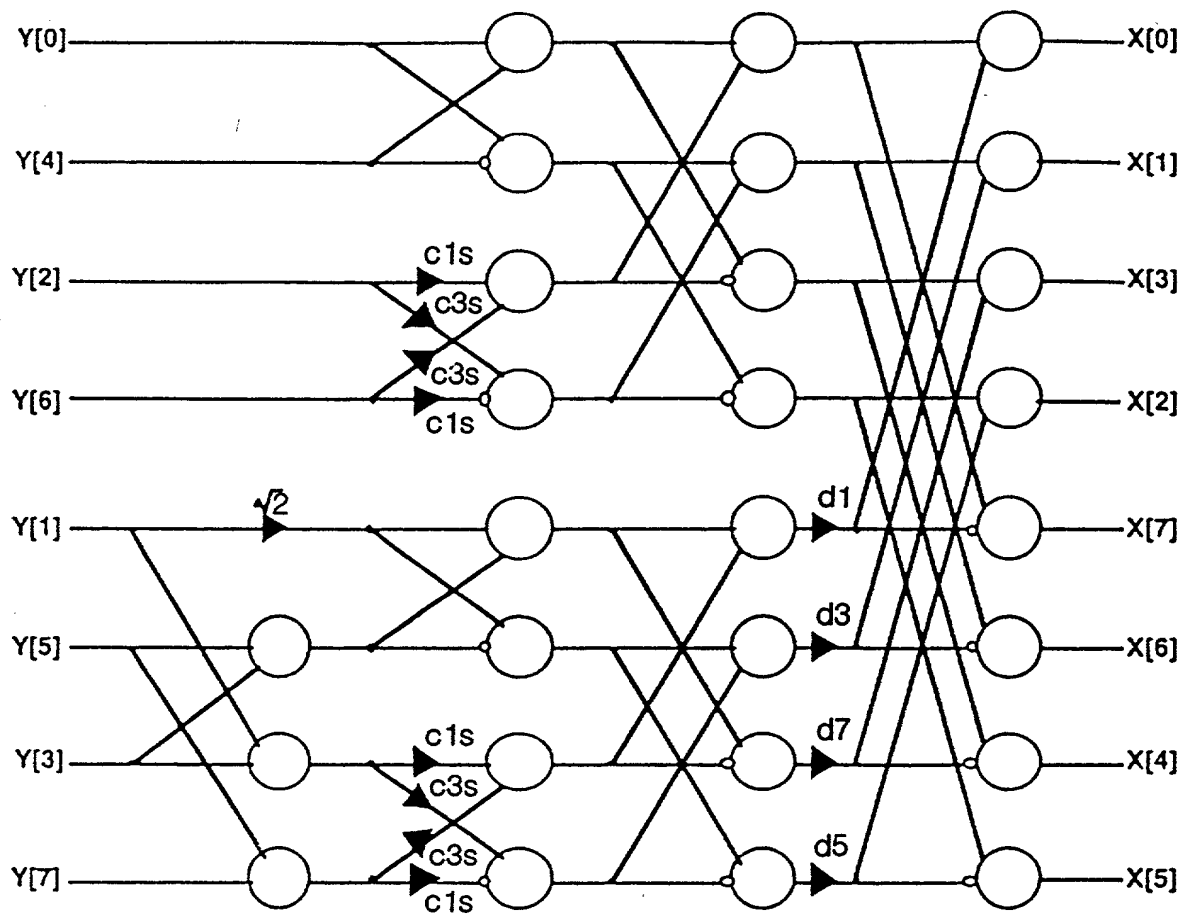


FIG. 135



Key:-

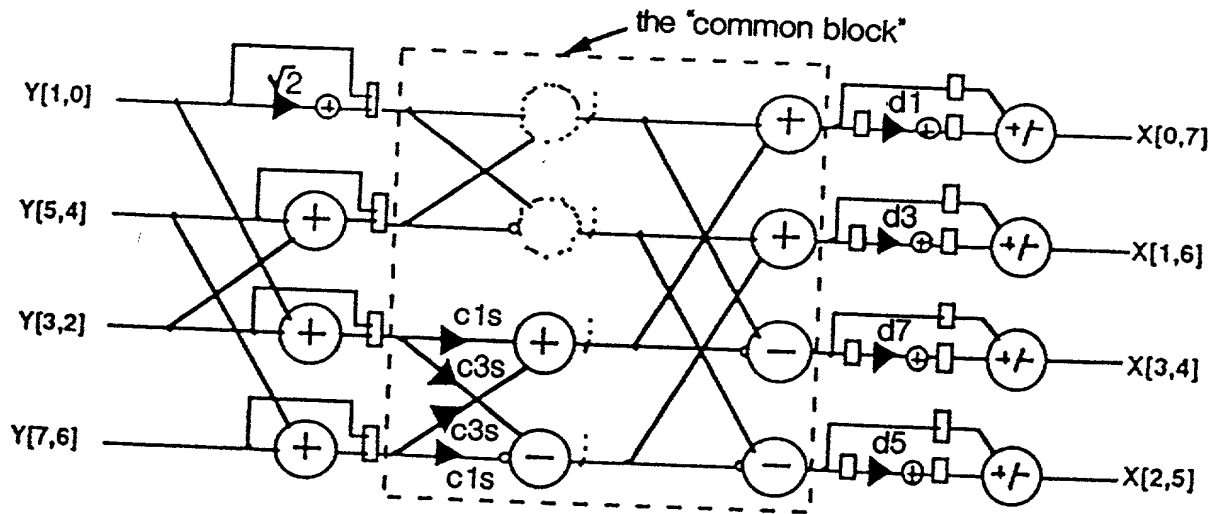
coef

constant coefficient multiplier



adder, subtractor

FIG. I 36



Key:

- coef constant coefficient
- ➡ carry-save multiplier
- ⊕ multiplier output resolver
- ⊕, ⊖ resolving adder, subtractor
- ⊕, ⊖ resolving adder/subtractor

- ⊕, ⊖ carry-save adder, subtractor
- ⊕, ⊖ dummy adder/subtractor (combiners)
- ⊖ latch
- ⊖ 2-input mux latch

FIG. 137

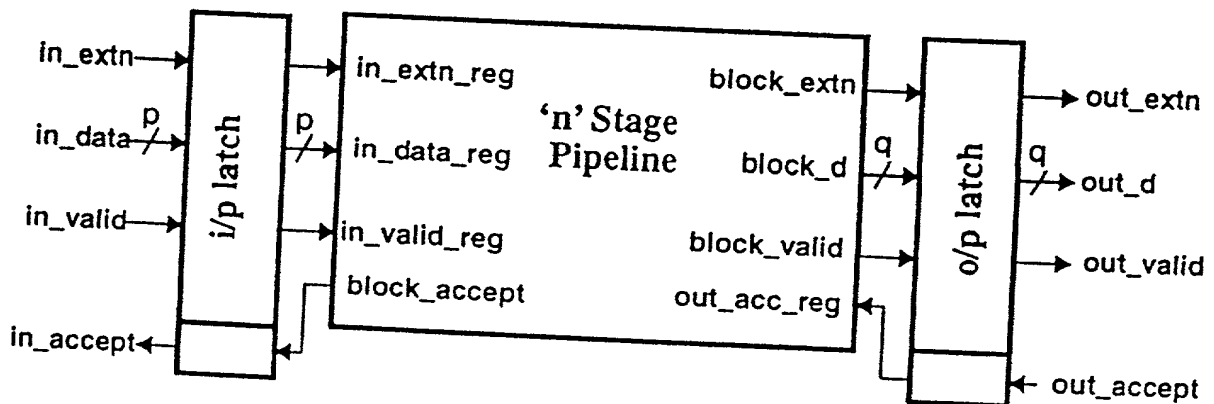


FIG. 138

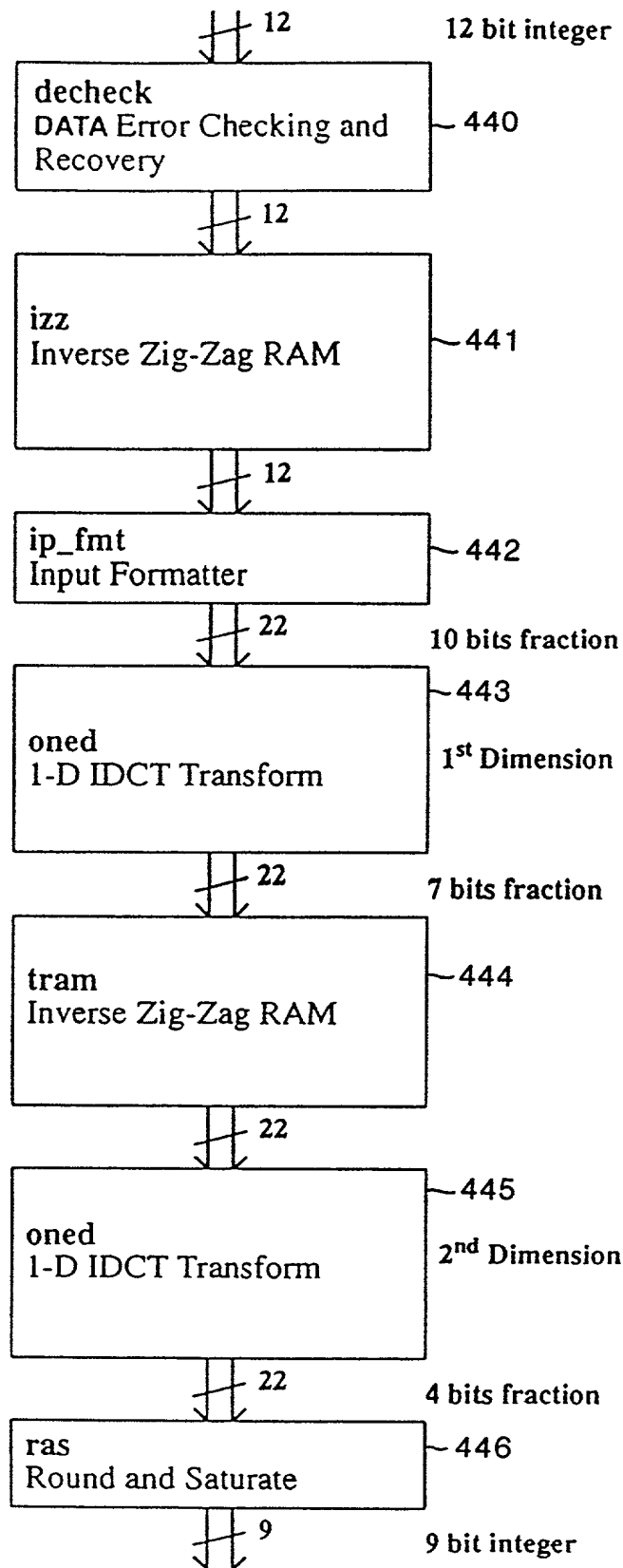


FIG. 139

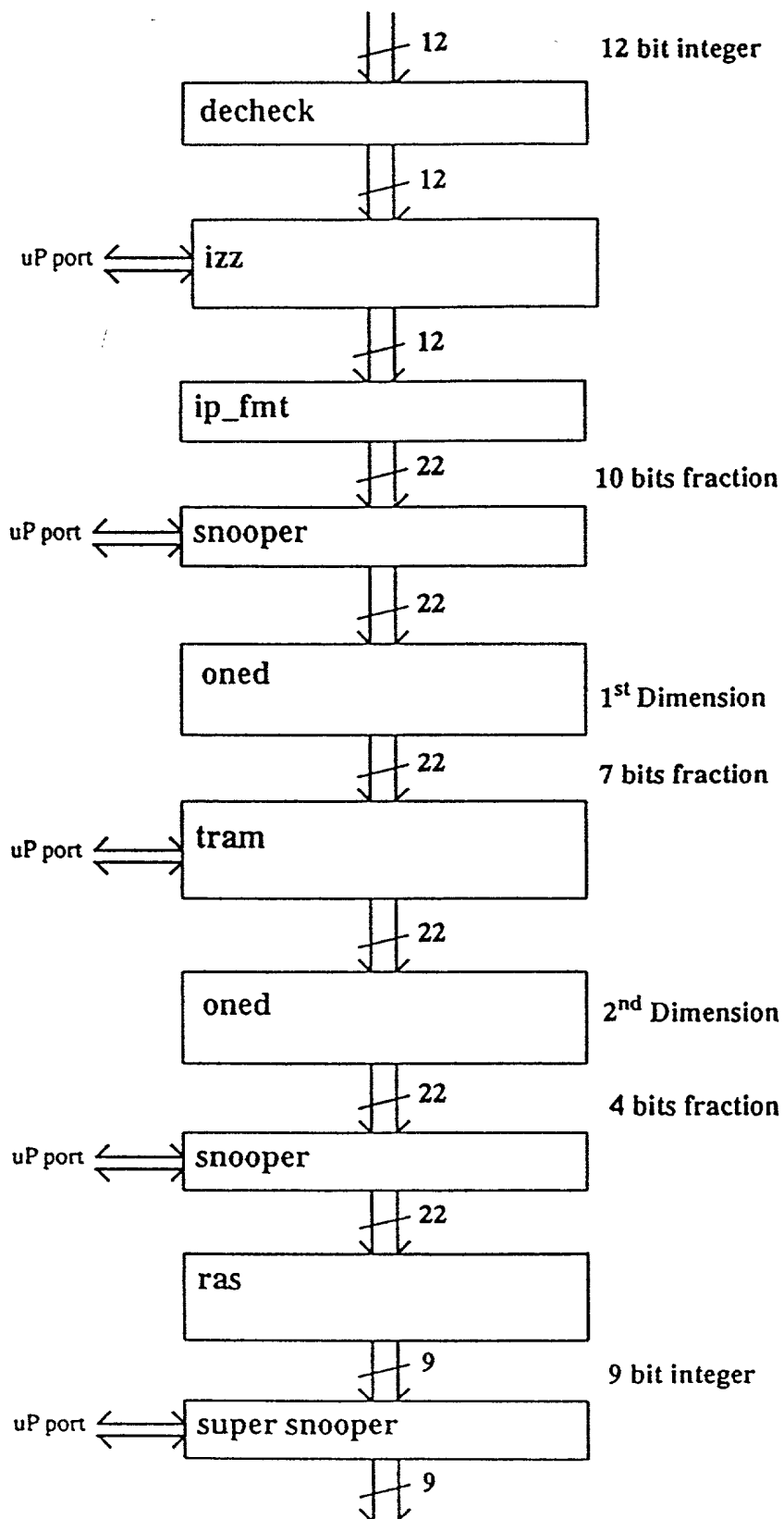


FIG. 140

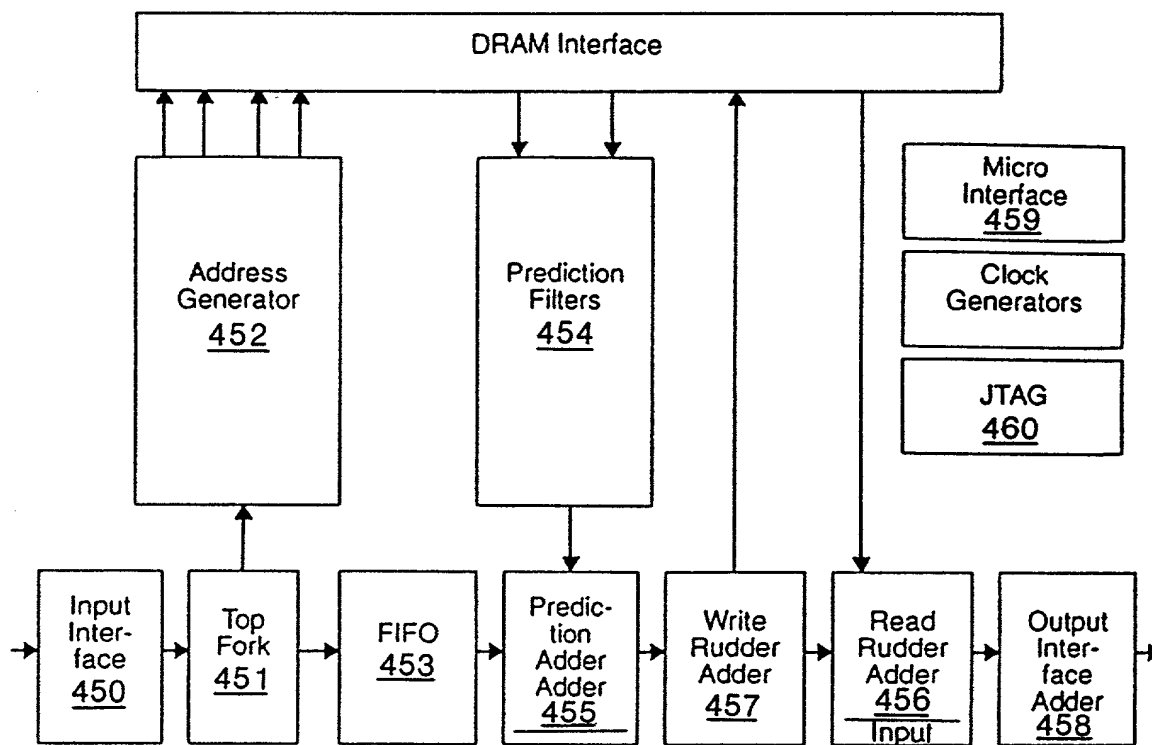


FIG. 142

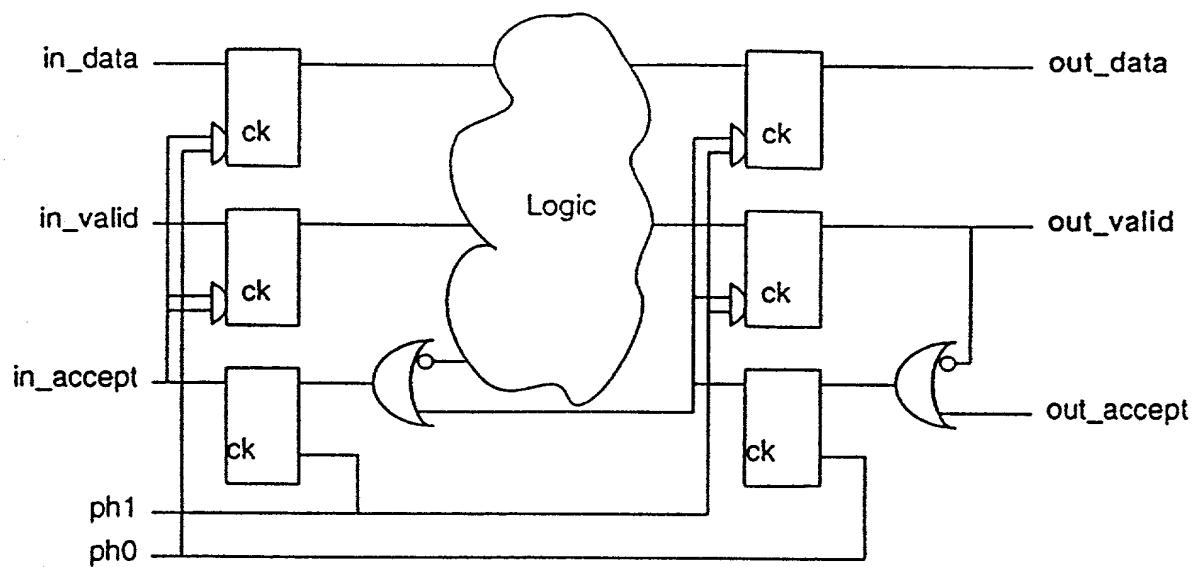


FIG. 143

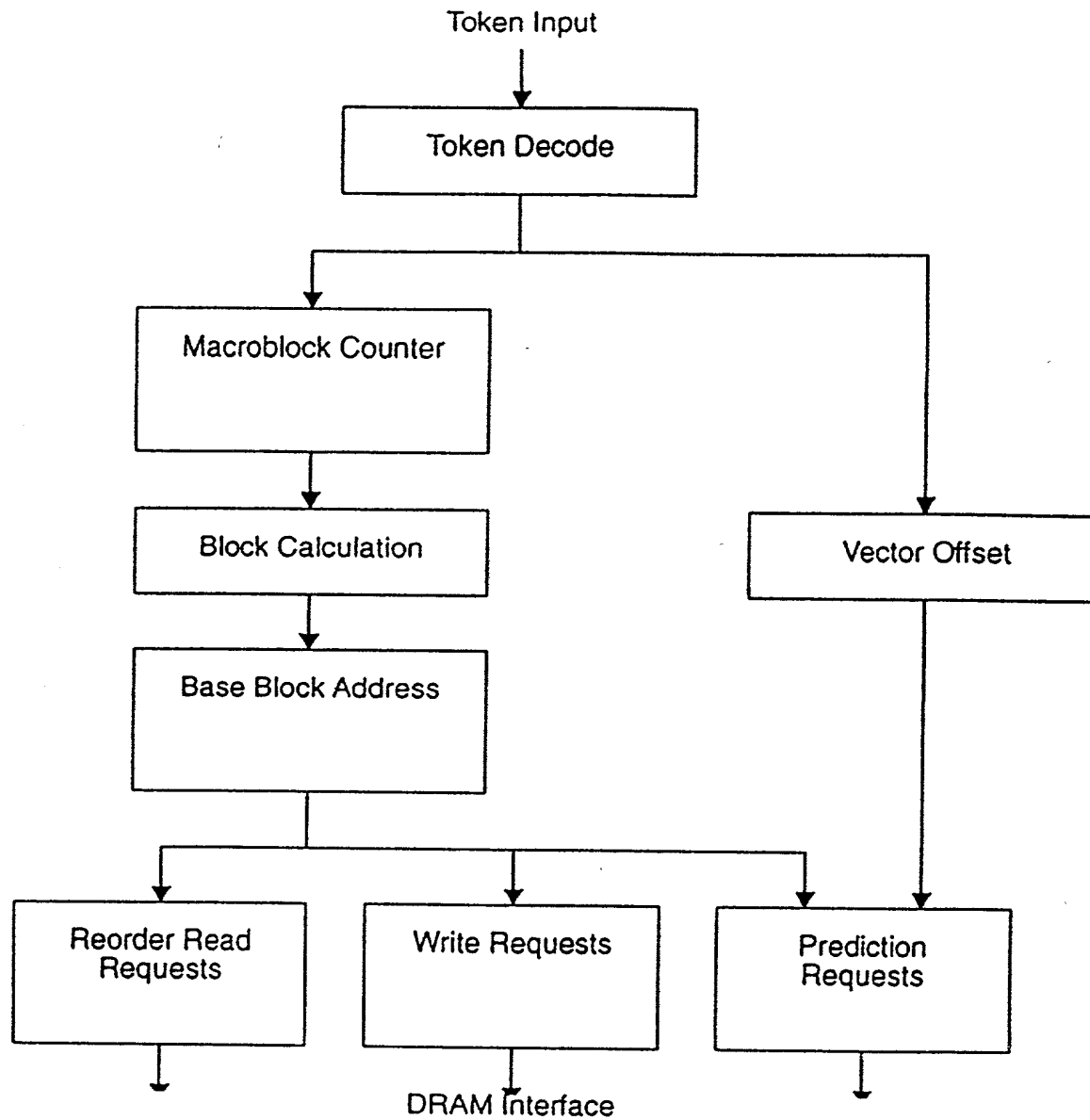


FIG. 144

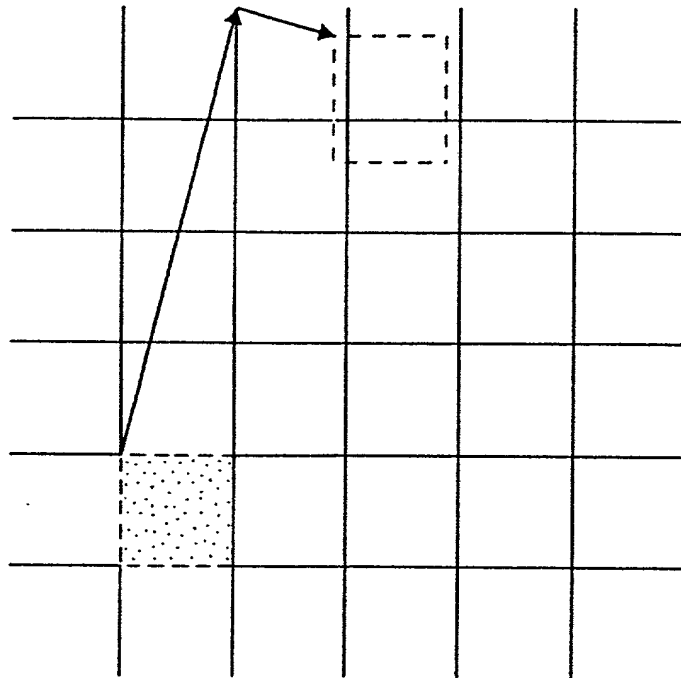


FIG. 145

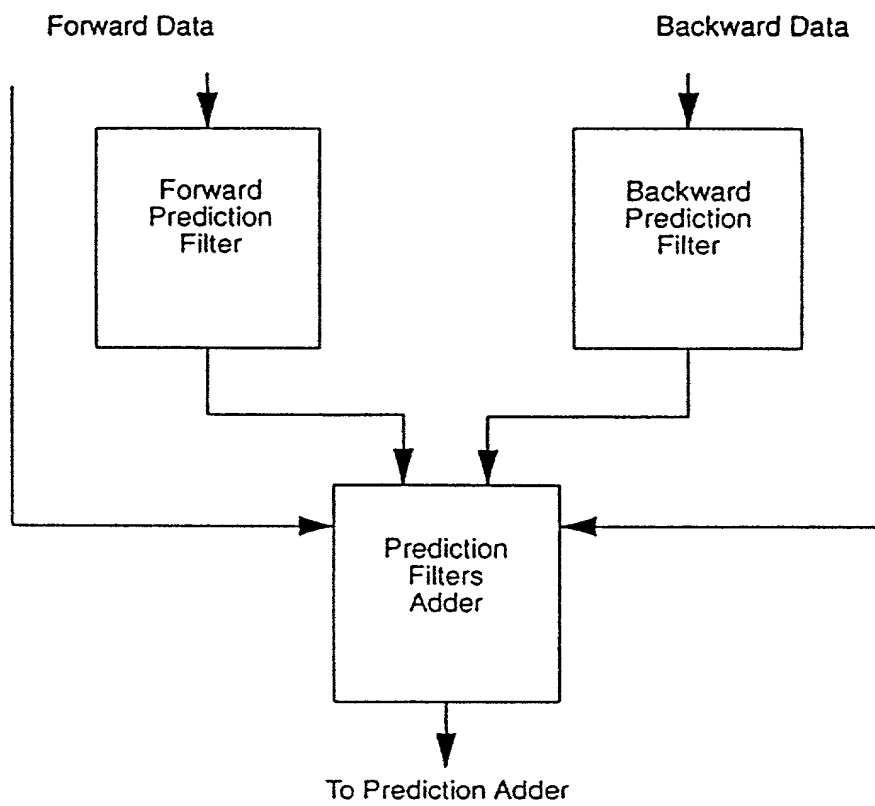


FIG. 146

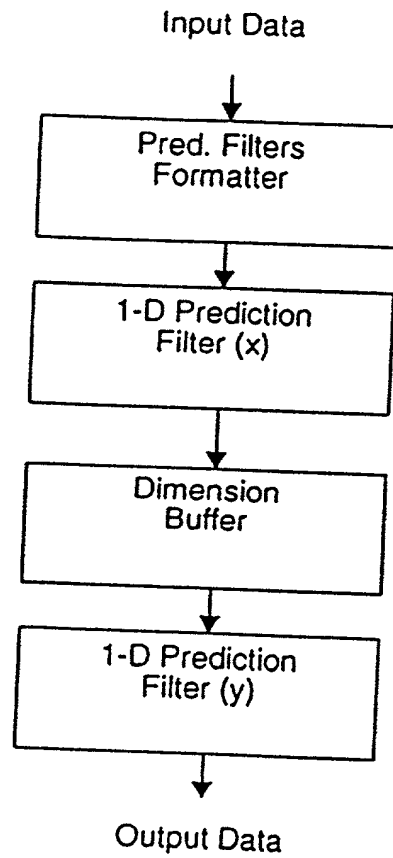


FIG. 1 47

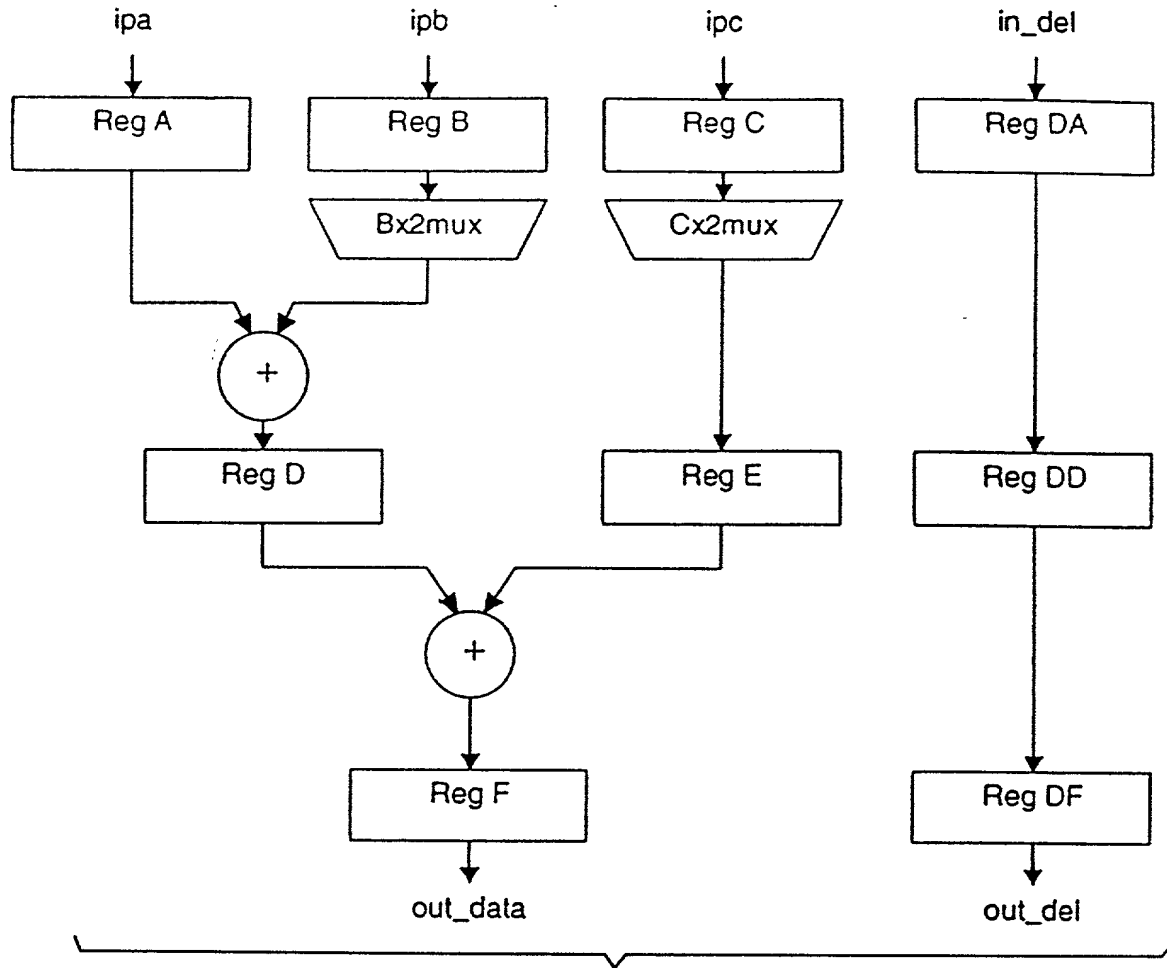


FIG. 148

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

FIG. 149

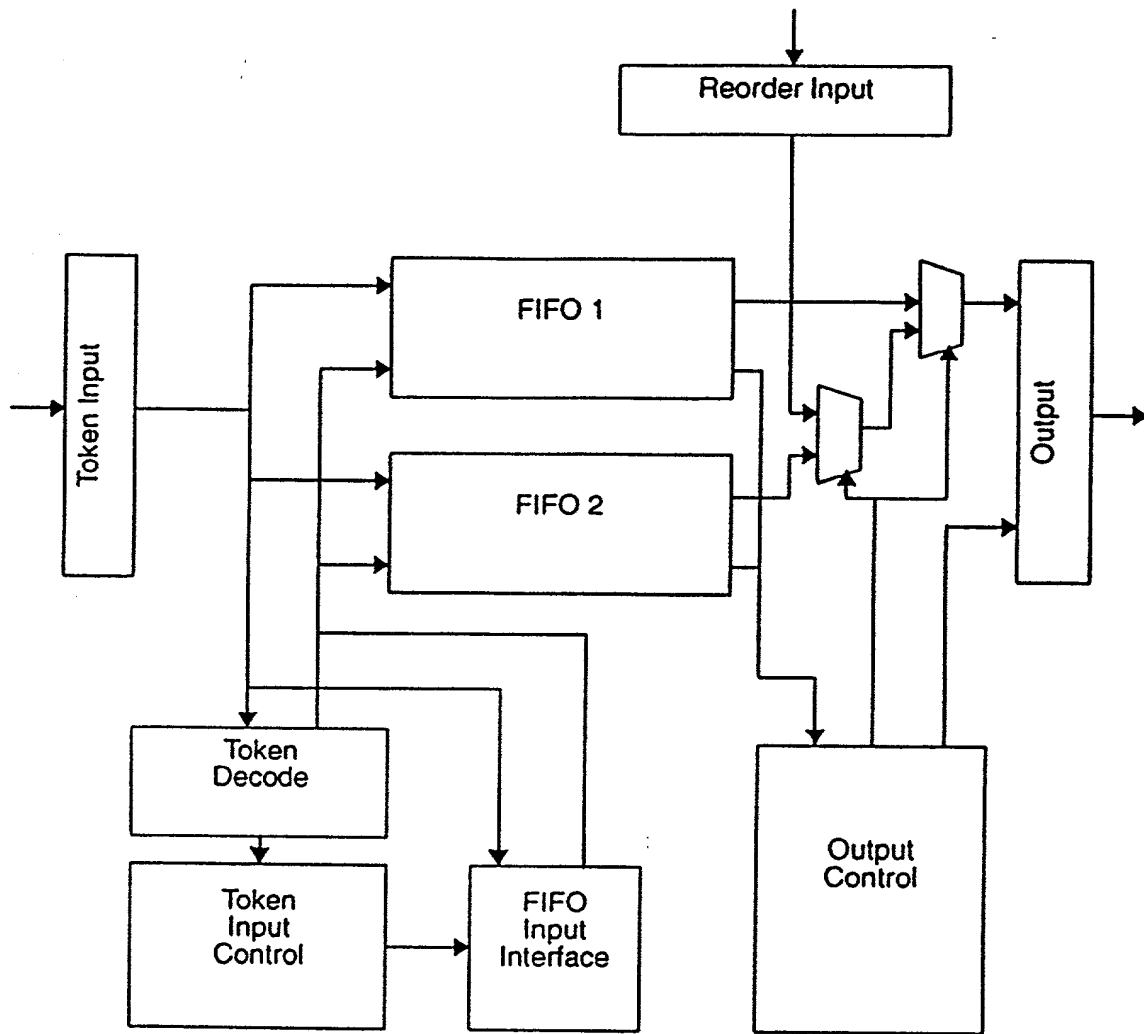


FIG. 1 50

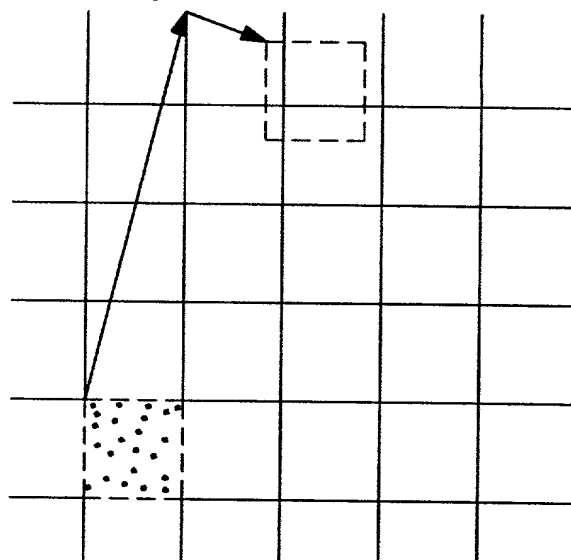


FIG. 151

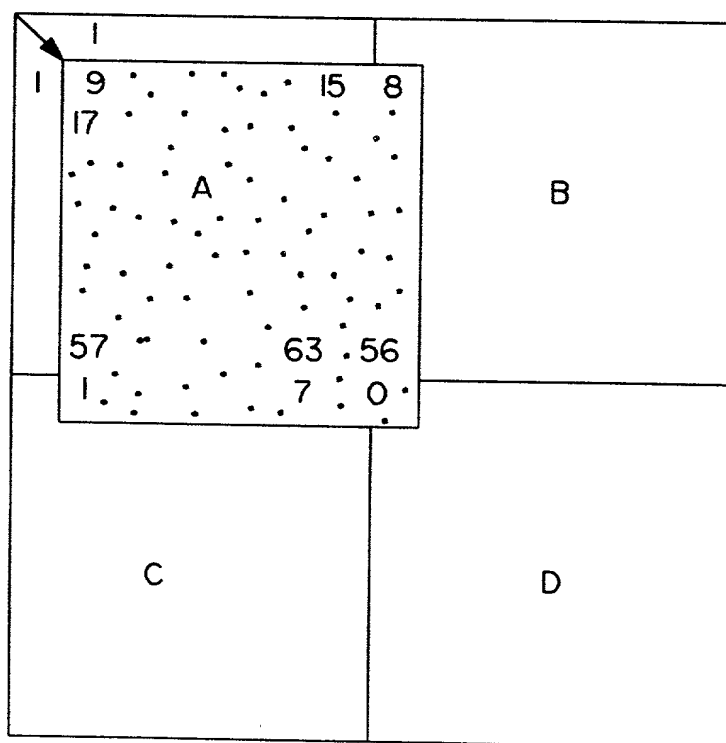


FIG. 152

Read Cycle

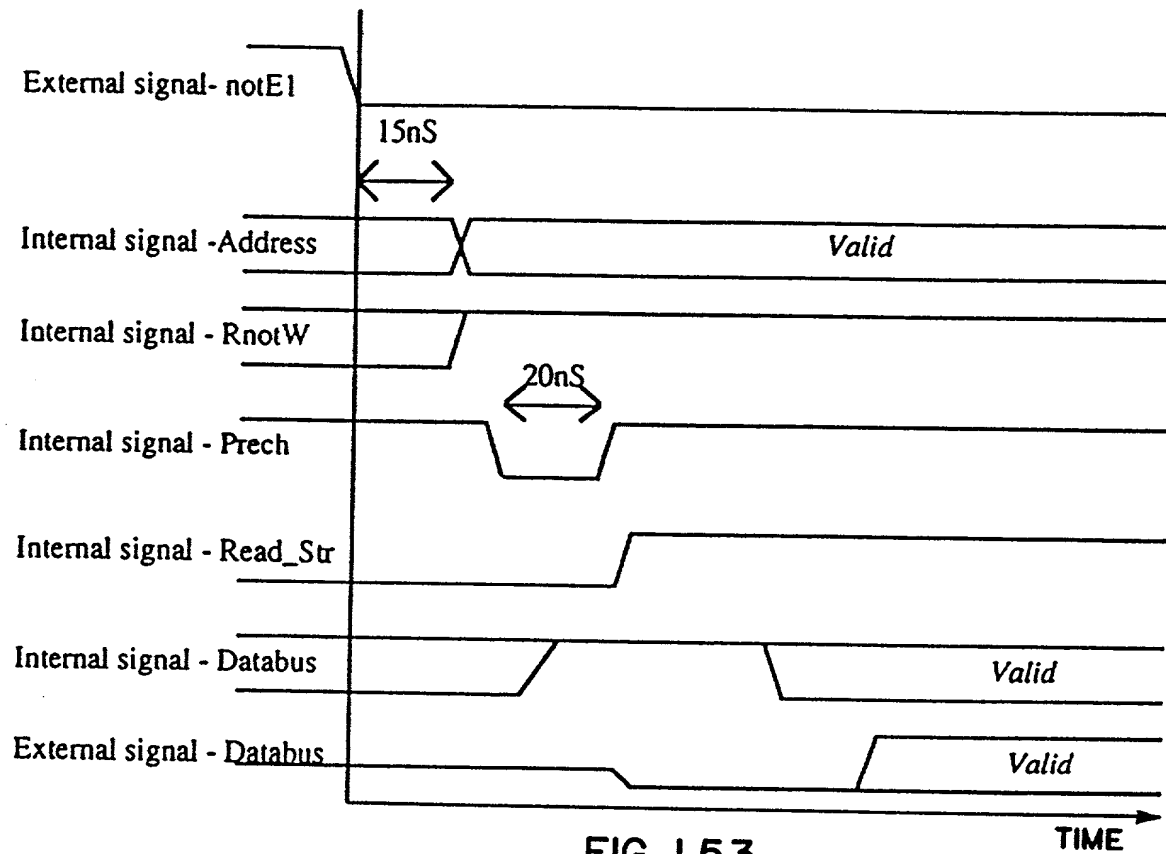


FIG. 153

Write Cycle

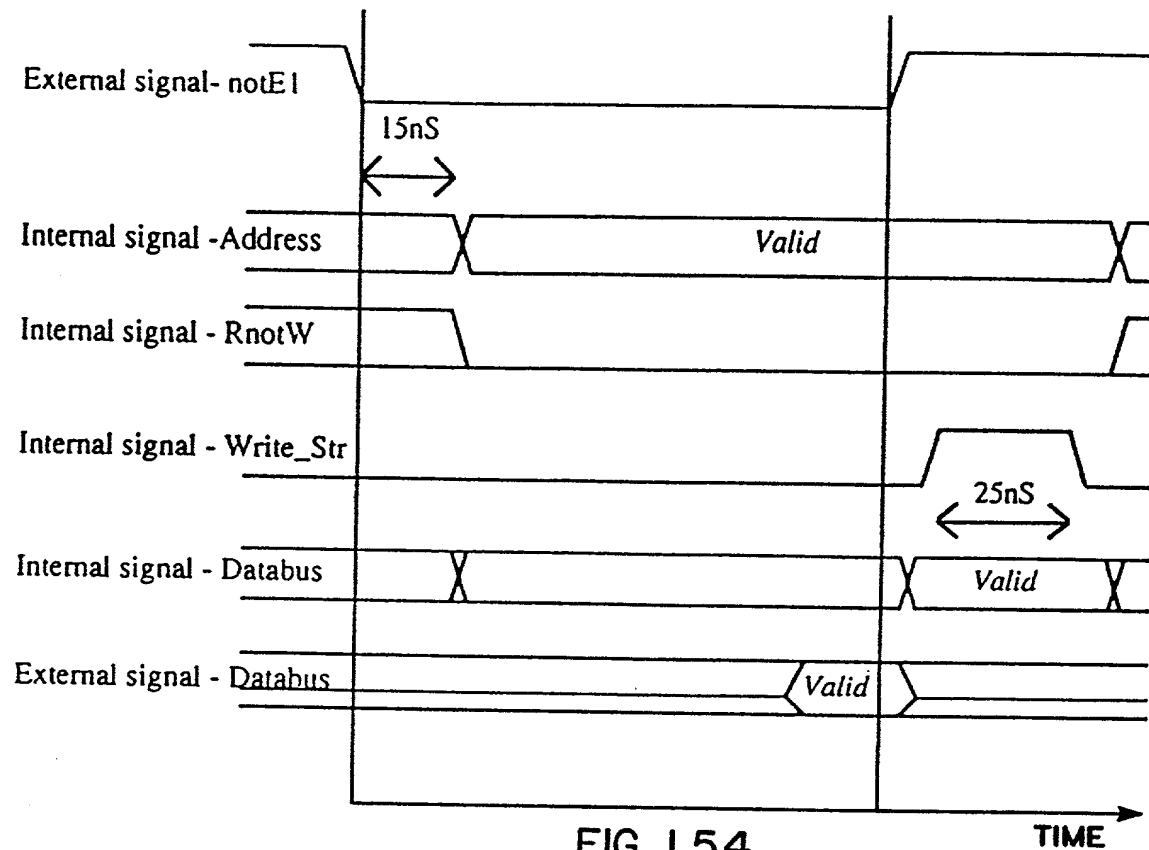


FIG. 154

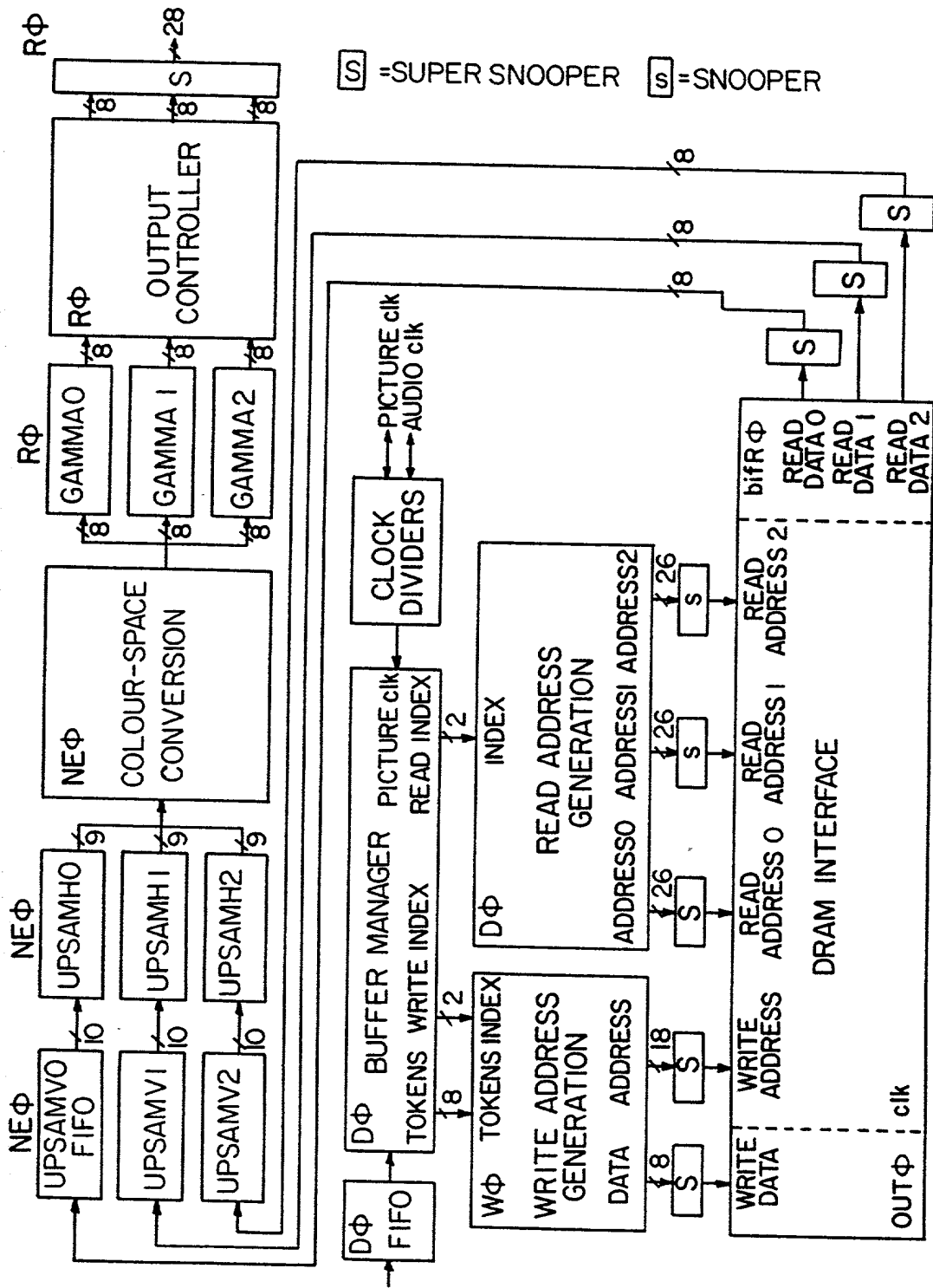


FIG. 155

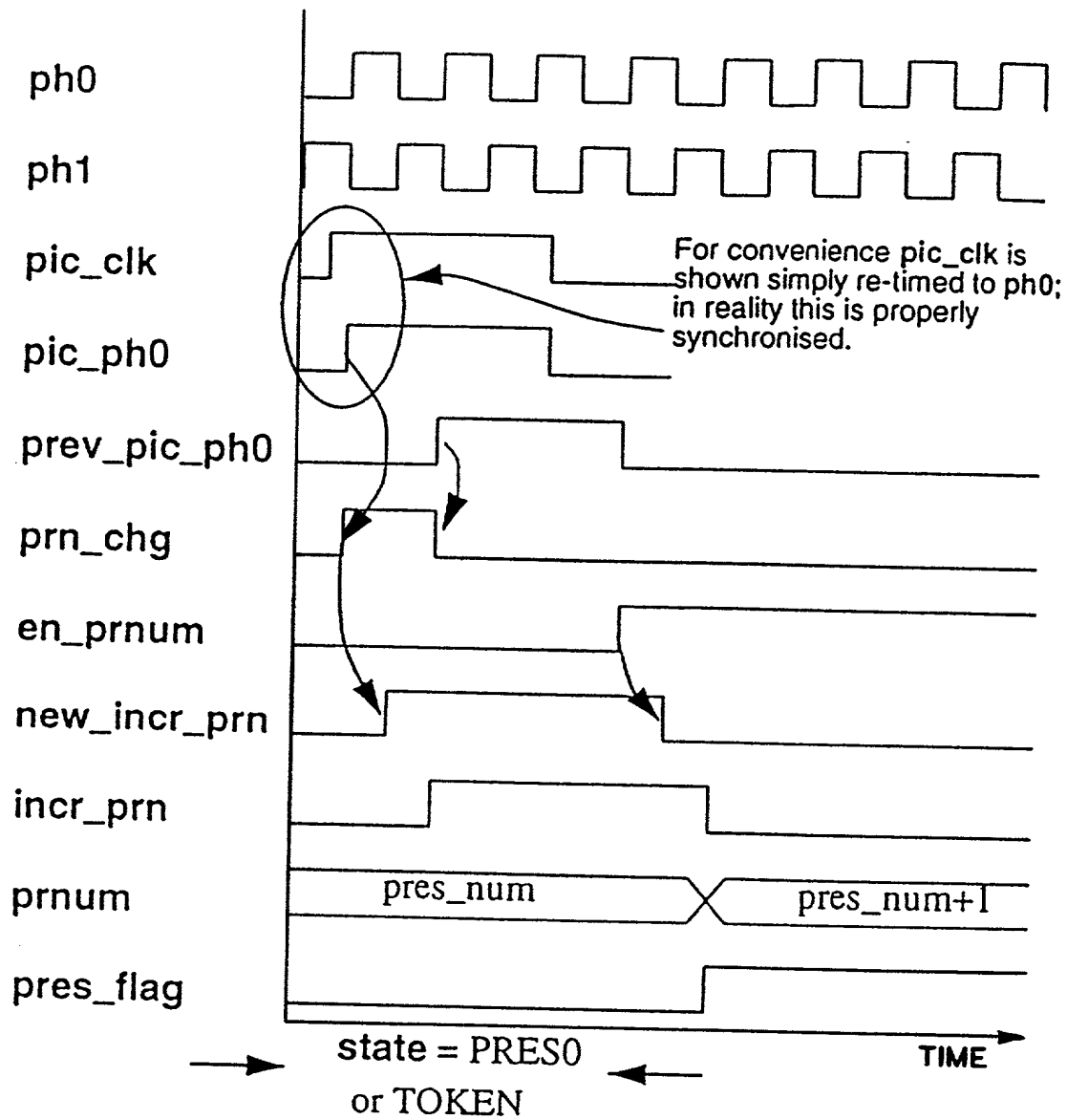


FIG. 156

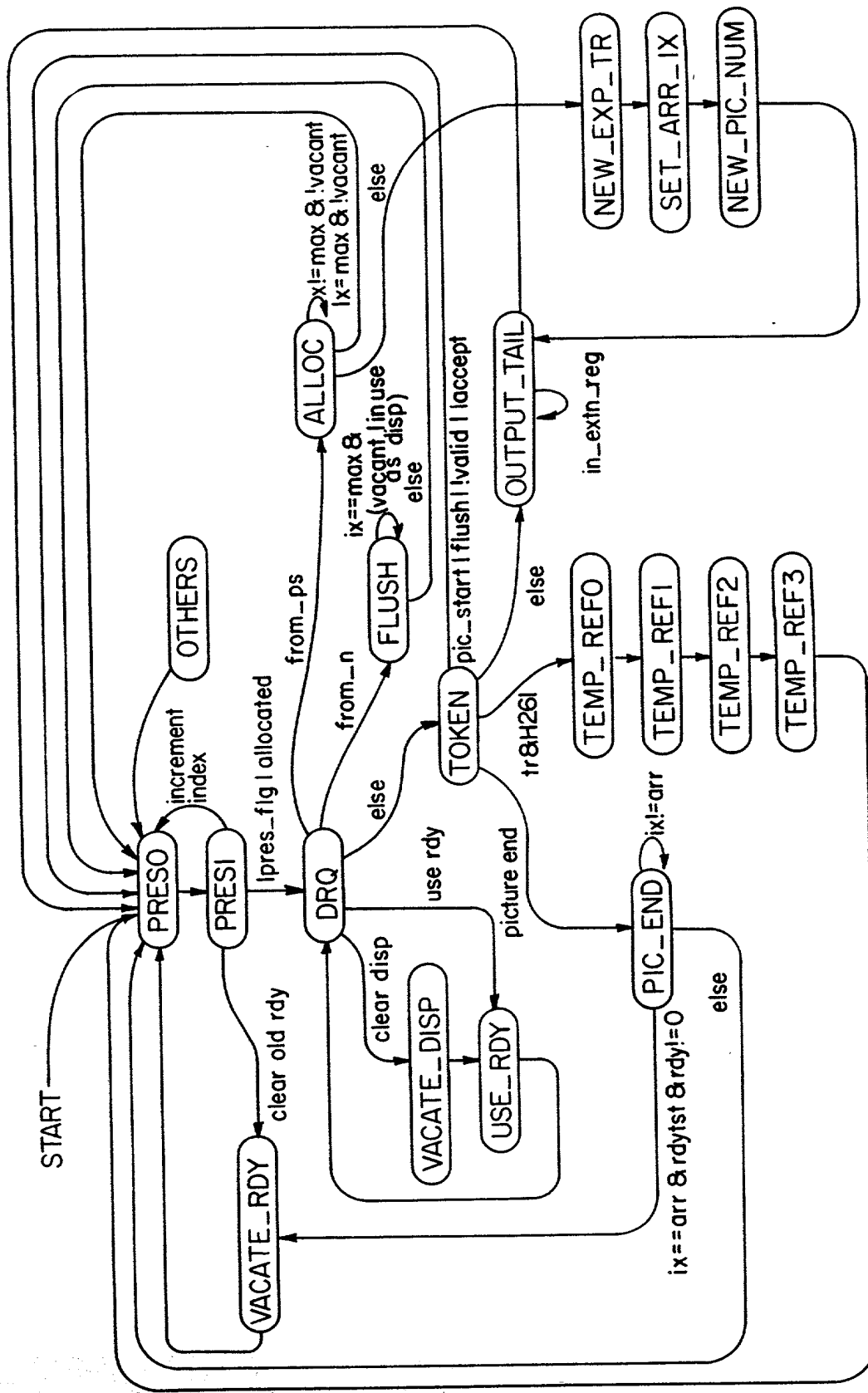


FIG. 157

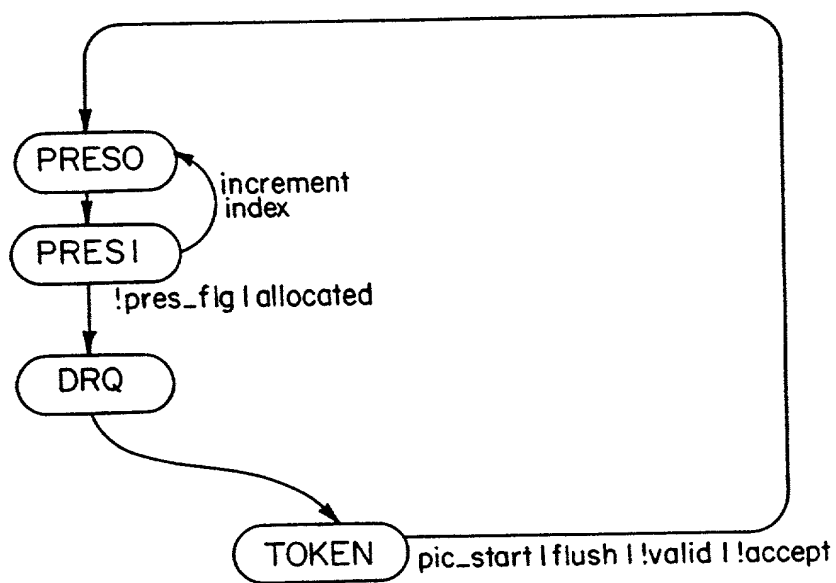
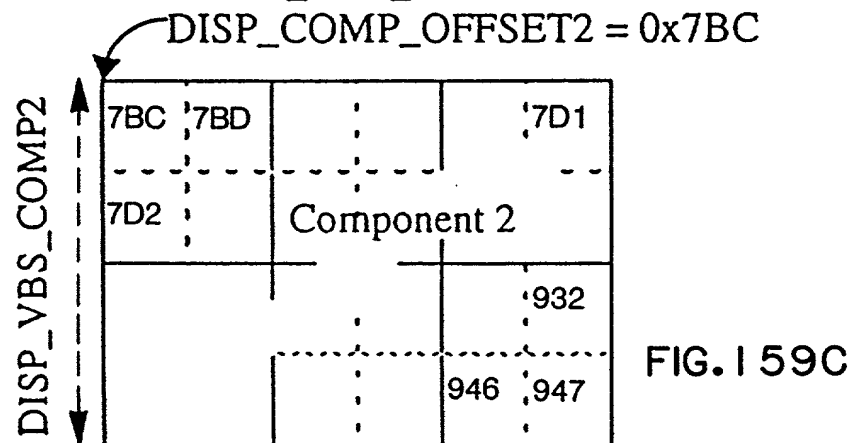
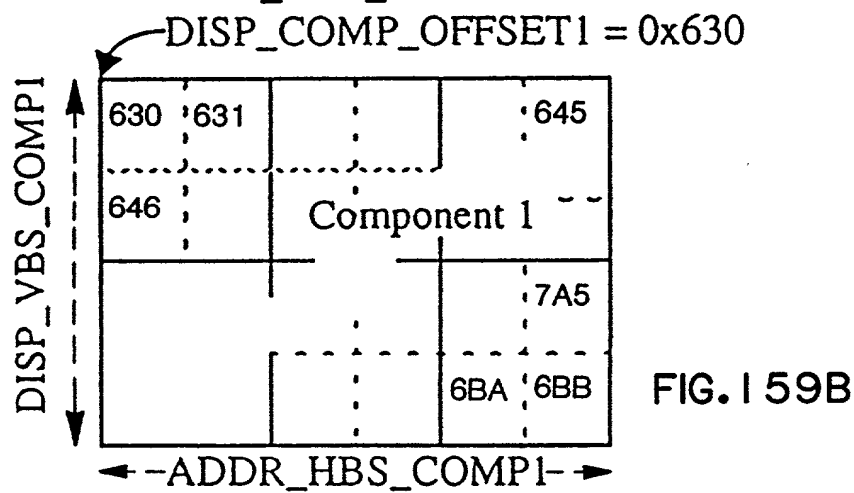
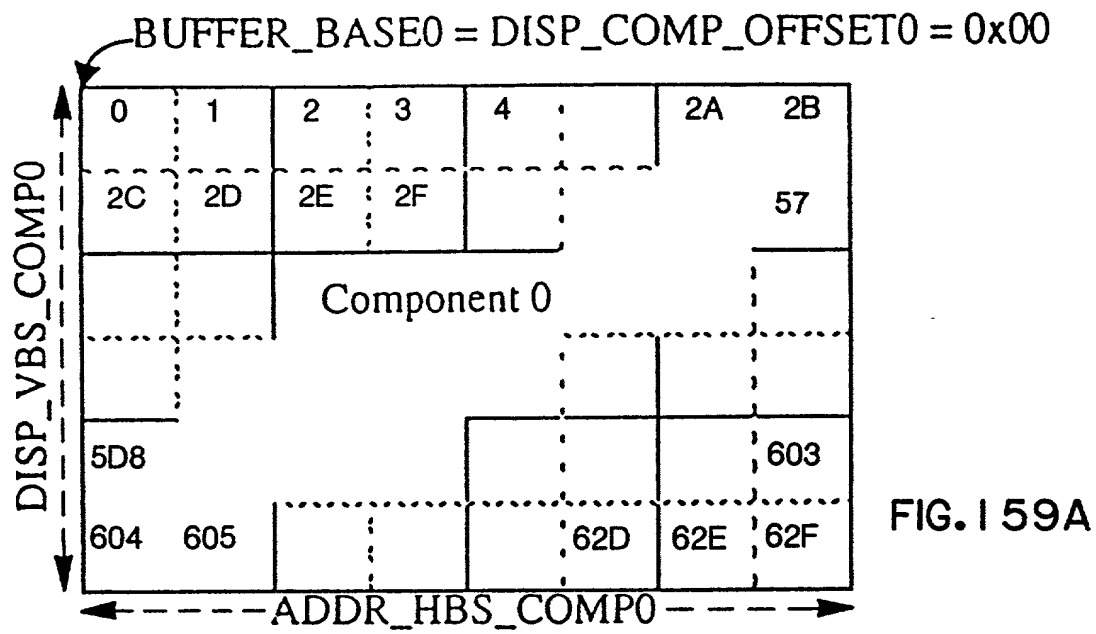


FIG. 158



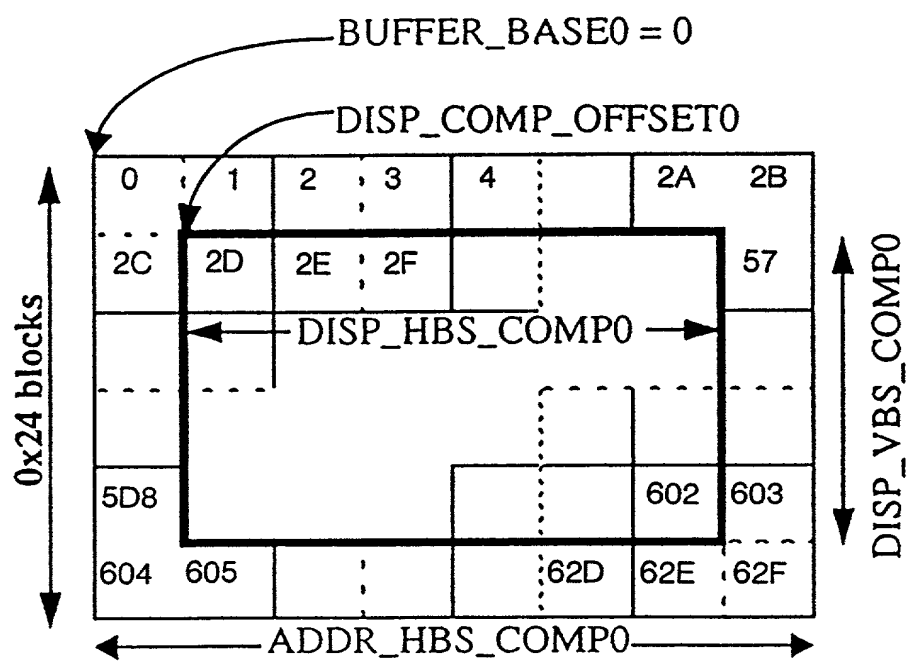


FIG. 160

BUFFER OFFSET 0x00

COMPONENT OFFSET 0x000 +

00	01	02	03	04	05	06	07	08	09	0A	0B
0C	0D	0E	0F	10	11	12	13	14	15	16	17
18	19	1A	1B	1C	1D	1E	1F	20	21	22	23
24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
30	31	32	33	34	35	36	37	38	39	3A	3B
3C	3D	3E	3F	40	41	42	43	44	45	46	47
48	49	4A	4B	4C	4D	4E	4F	50	51	52	53
54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
60	61	62	63	64	65	66	67	68	69	6A	6B
6C	6D	6E	6F	70	71	72	73	74	75	76	77
78	79	7A	7B	7C	7D	7E	7F	80	81	82	83
84	85	86	87	88	89	8A	8B	8C	8D	8E	8F

FIG.161A

COMPONENT1 OFFSET 0x100 +

00	01	02	03	04	05
06	07	08	09	0A	0B
0C	0D	0E	0F	10	11
12	13	14	15	16	17
18	19	1A	1B	1C	1D
1E	1F	20	21	22	23

FIG.161B

COMPONENT1 OFFSET 0x200 +

00	01	02	03	04	05
06	07	08	09	0A	0B
0C	0D	0E	0F	10	11
12	13	14	15	16	17
18	19	1A	1B	1C	1D
1E	1F	20	21	22	23

FIG.161C

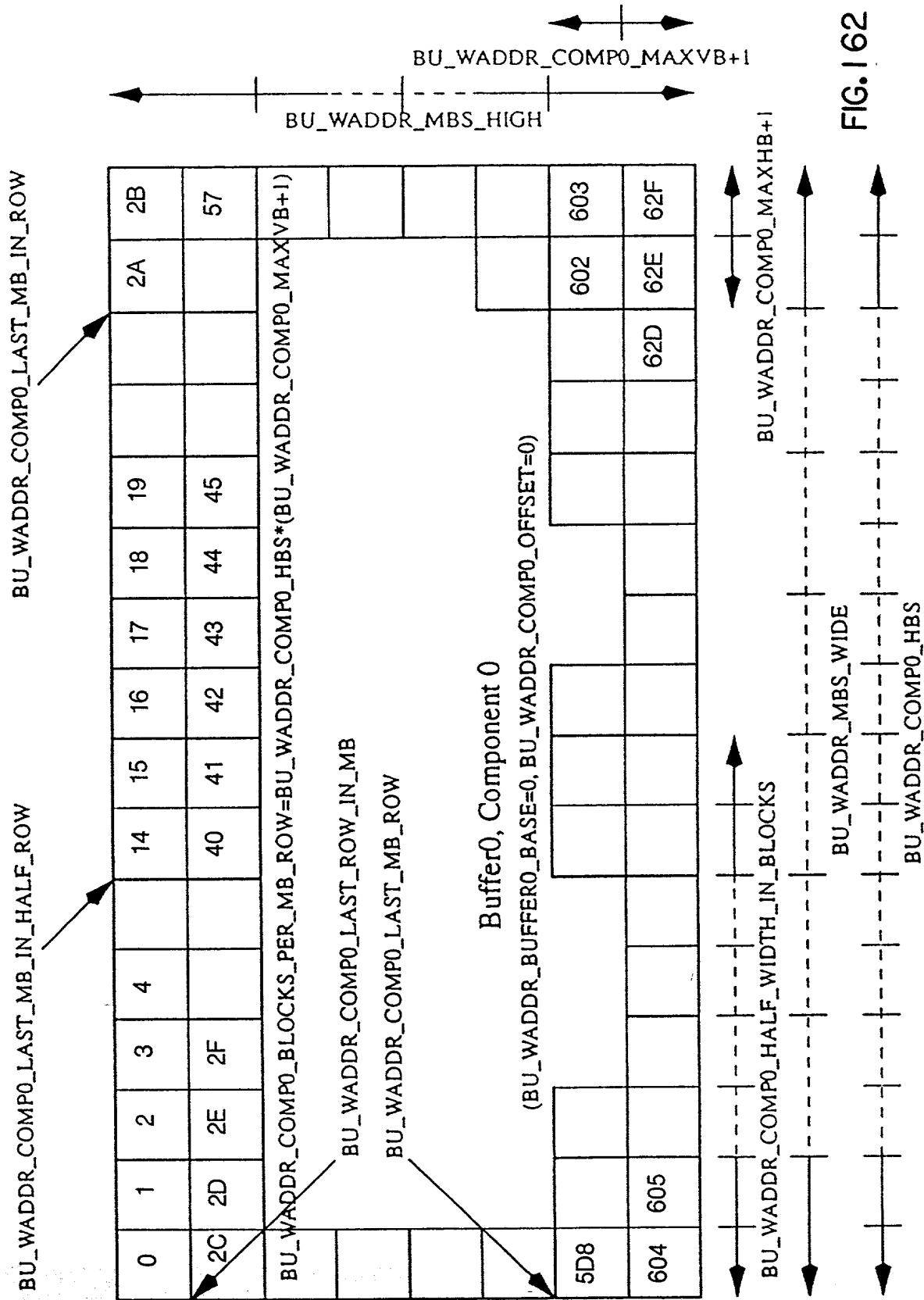


FIG. 162

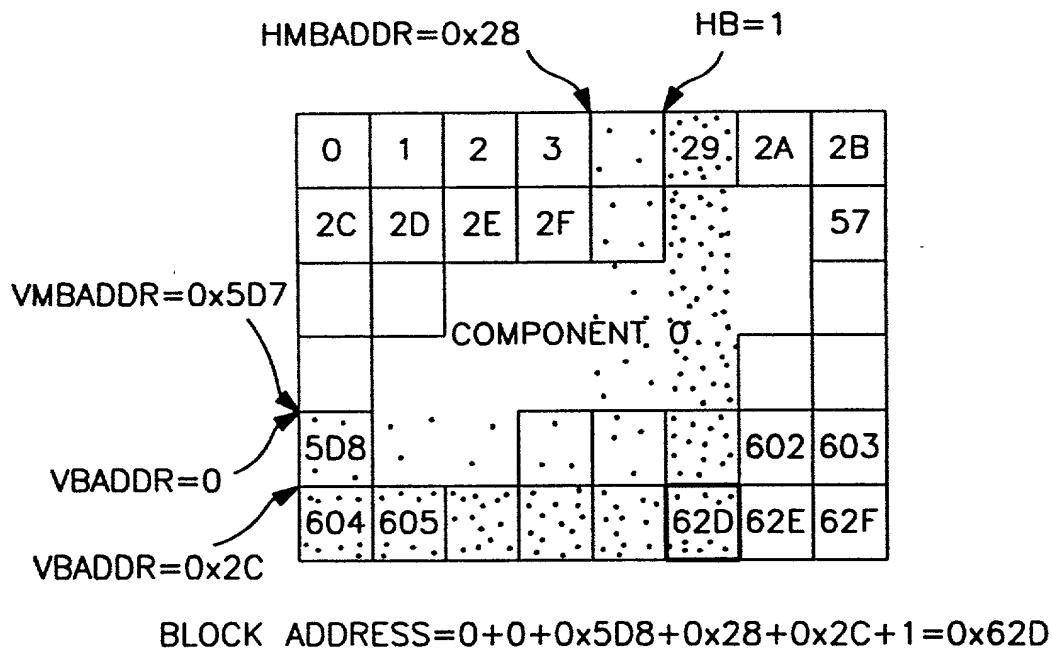


FIG. 1 63A

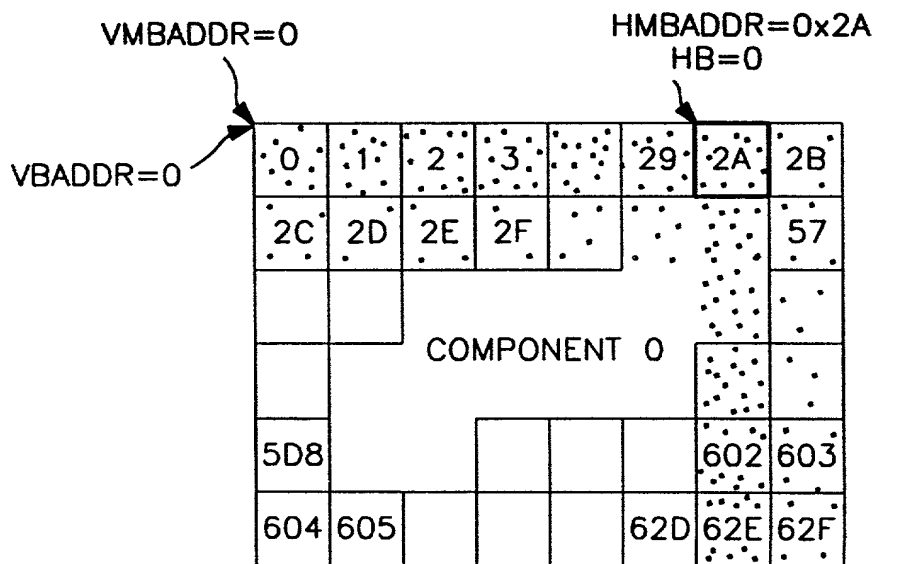
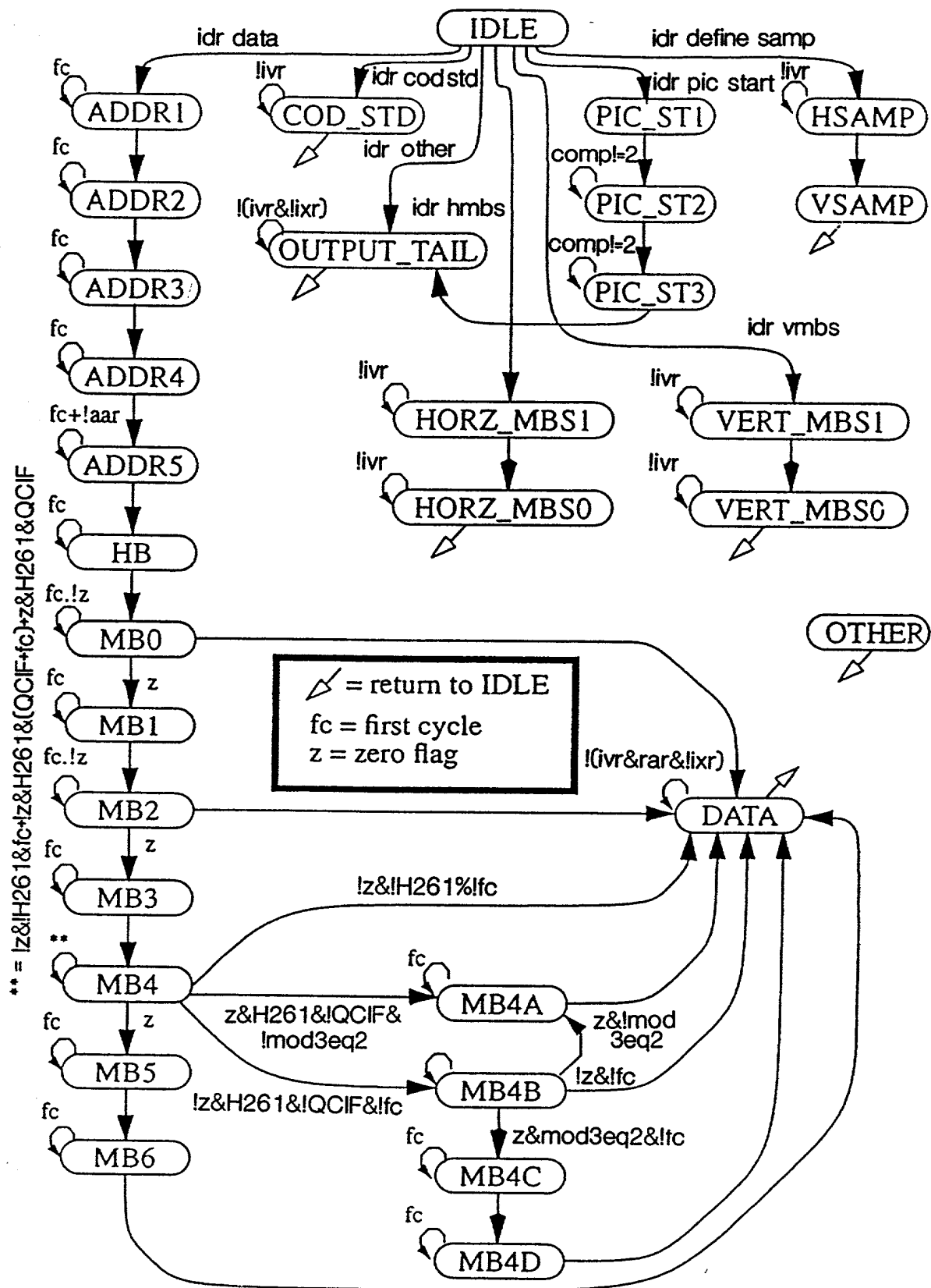


FIG. 1 63B



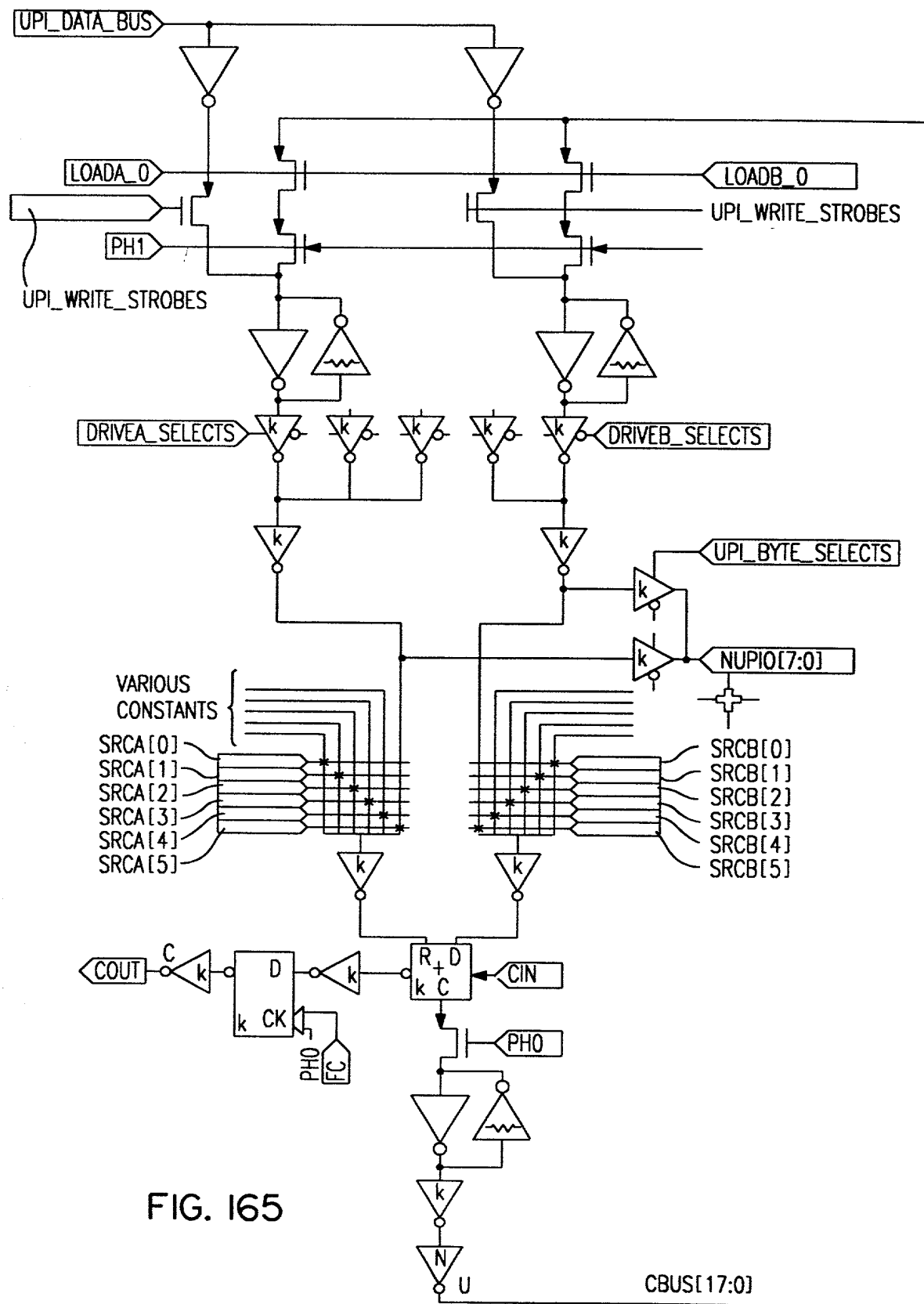
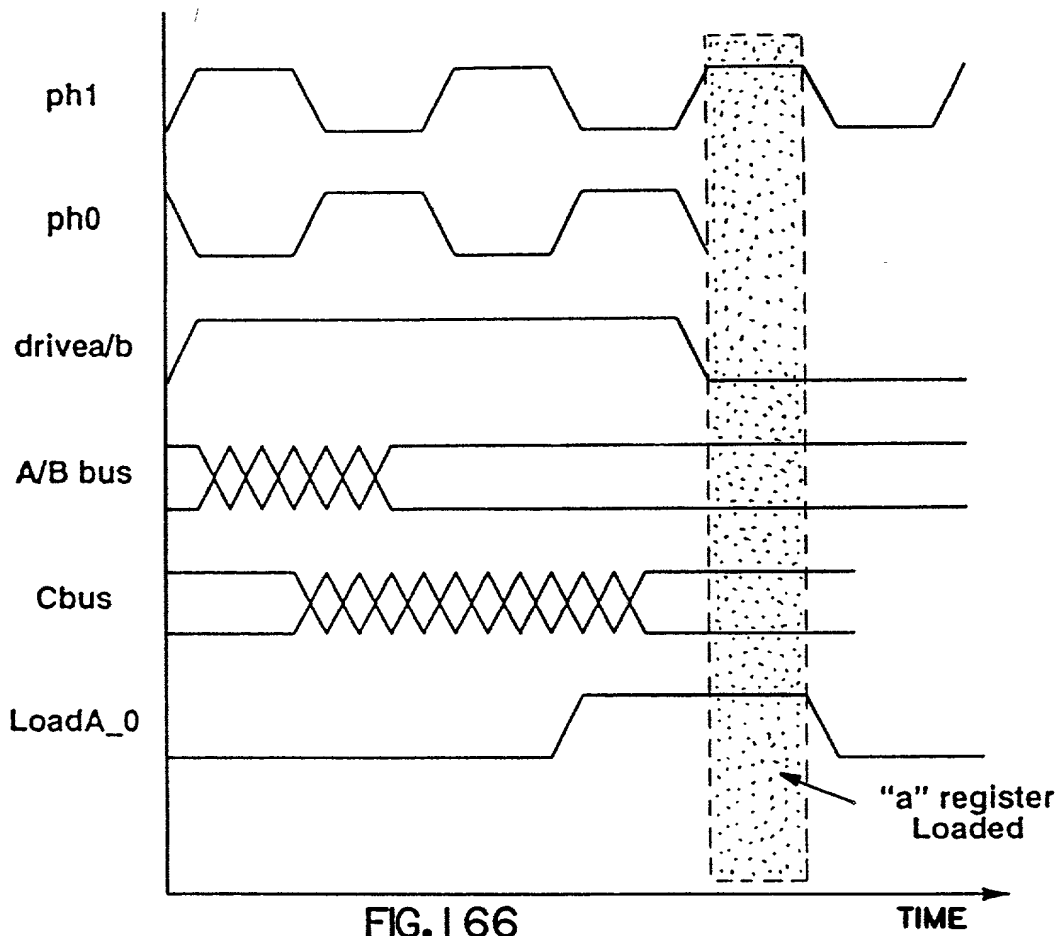


FIG. 165



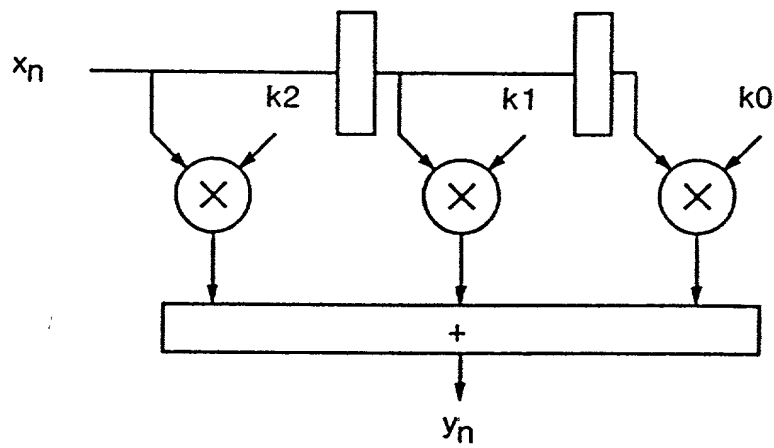


FIG. 167

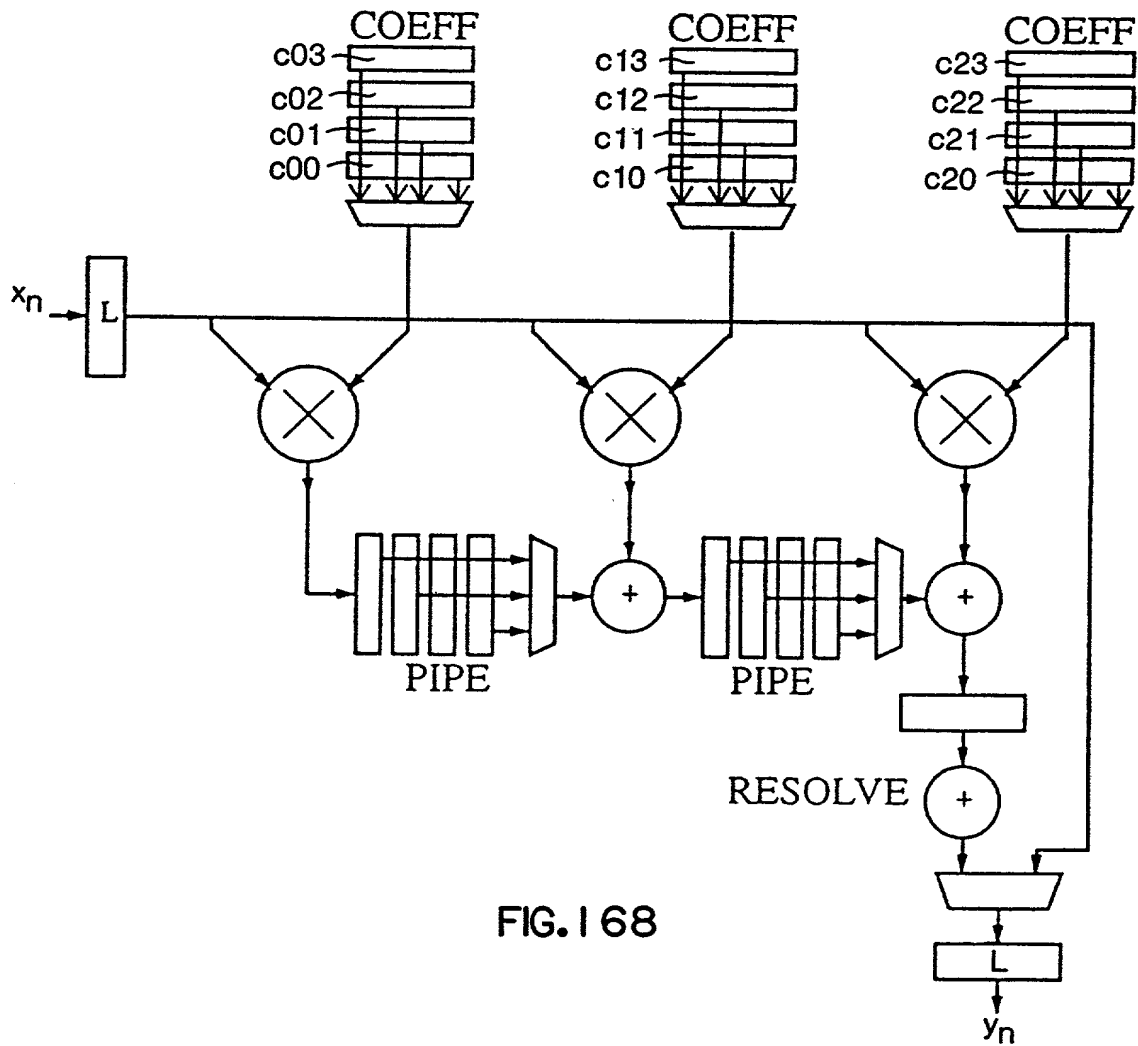


FIG. 168

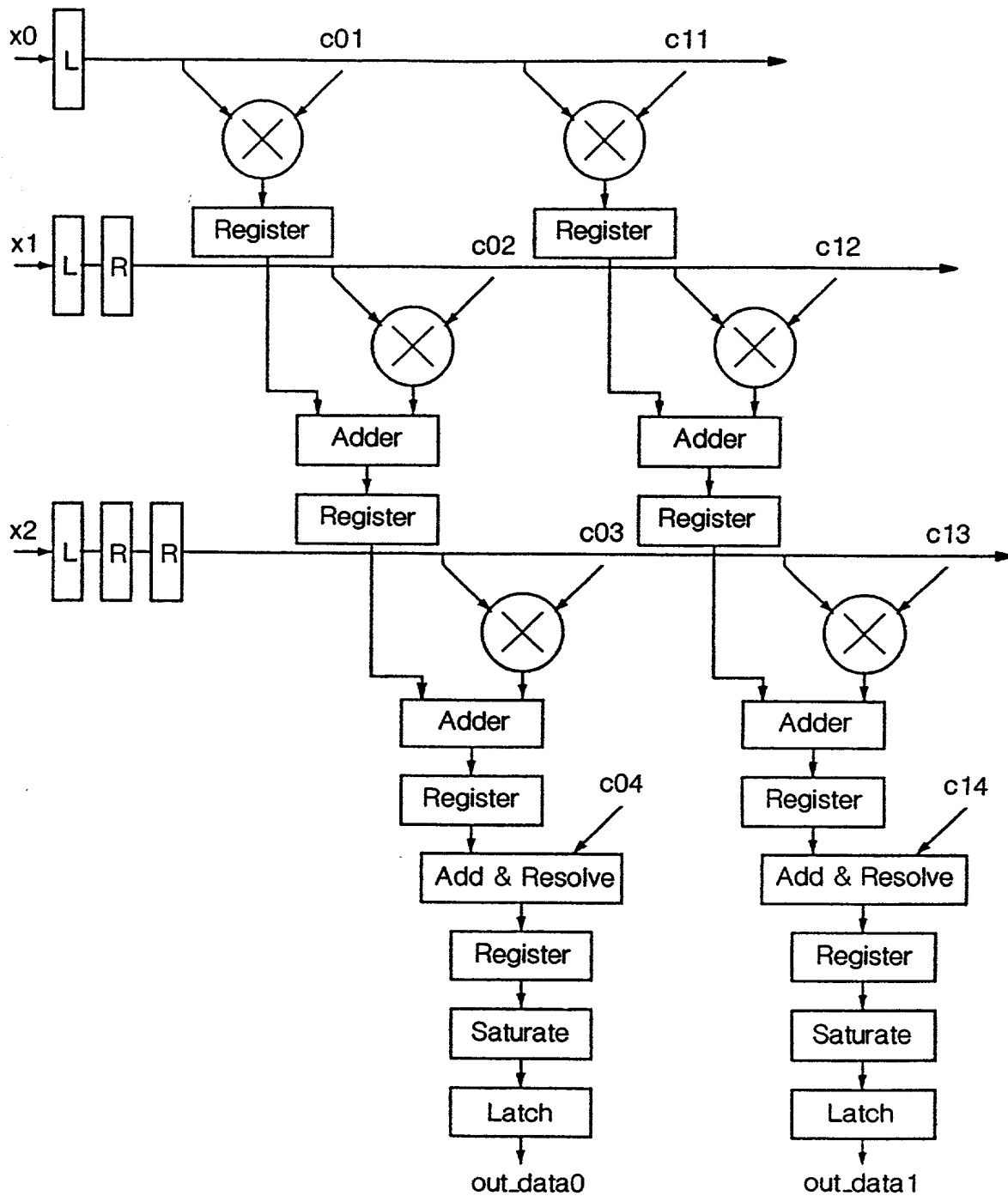


FIG. 169